
UTAH ENERGY STATISTICAL ABSTRACT

With data through 2002



**Prepared by the Utah Energy Office
Department of Natural Resources**

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PREFACE

One of the objectives of the Utah Energy Office is to provide government agencies, private industry, and the general public with timely, accurate and objective energy data. To help meet this objective, we compile Utah-specific energy data from federal and state government, energy industry trade associations, energy companies and private information services in a single, comprehensive document: the *Utah Energy Statistical Abstract*.

The seventh edition of the *Utah Energy Statistical Abstract* is organized by primary energy source and each section lists historical and current data on reserves, production, consumption, distribution and prices. An appendix and glossary provide information on definitions, technical terms and conversion factors.

The *Utah Energy Statistical Abstract* is continually updated as more current information becomes available. Updated tables (Excel spreadsheet files) and figures (PDF files) may be found on the Utah Energy Office web site at: www.energy.utah.gov

To learn more about specific energy resources or to request a paper copy of the *Utah Energy Statistical Abstract*, contact the Utah Energy Office at (801) 538-5428.

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Table 1.1 U.S. Energy Consumption and Expenditures, 1970-2002

Year	Population ¹	Gross Domestic Product ¹	Energy Consumption ²	Energy Consumption Per Dollar of GDP	Energy Expenditures ³	Per Capita Energy Consumption	Per Capita Energy Expenditures
	Millions	Billion 2002 Dollars	Trillion Btu	Btu per 2002 Dollar	Million 2002 Dollars	Million Btu	2002 Dollars
1970	203.2	3,985.6	67,844	17,022	317,785	333.9	1,563.9
1971	206.8	4,119.5	69,289	16,820	328,692	335.1	1,589.4
1972	209.3	4,342.6	72,704	16,742	343,400	347.4	1,640.7
1973	211.4	4,593.6	75,708	16,481	371,035	358.1	1,755.1
1974	213.3	4,566.1	73,991	16,204	466,499	346.9	2,187.1
1975	215.5	4,550.6	71,999	15,822	478,110	334.1	2,218.6
1976	217.6	4,803.4	76,012	15,825	510,523	349.3	2,346.2
1977	219.8	5,026.6	78,000	15,517	545,348	354.9	2,481.1
1978	222.1	5,303.0	79,986	15,083	552,438	360.1	2,487.3
1979	224.6	5,471.7	80,903	14,786	634,325	360.2	2,824.2
1980	226.5	5,459.8	78,289	14,339	731,051	345.6	3,227.6
1981	229.6	5,592.9	76,335	13,649	763,916	332.5	3,327.2
1982	232.0	5,480.4	73,234	13,363	716,506	315.7	3,088.4
1983	234.3	5,717.0	73,066	12,780	674,492	311.8	2,878.8
1984	236.5	6,132.5	76,693	12,506	677,349	324.3	2,864.1
1985	238.7	6,369.0	76,417	11,998	661,039	320.1	2,769.3
1986	241.1	6,586.8	76,722	11,648	566,158	318.2	2,348.2
1987	243.4	6,809.9	79,156	11,624	568,243	325.2	2,334.6
1988	245.8	7,094.7	82,774	11,667	568,836	336.8	2,314.2
1989	248.2	7,343.4	84,886	11,559	584,294	342.0	2,354.1
1990	248.8	7,472.9	84,605	11,322	608,076	340.1	2,444.0
1991	252.1	7,437.7	84,522	11,364	584,080	335.3	2,316.9
1992	255.0	7,664.7	85,866	11,203	576,527	336.7	2,260.9
1993	257.8	7,867.6	87,579	11,132	583,729	339.7	2,264.3
1994	260.3	8,185.1	89,248	10,904	587,751	342.9	2,258.0
1995	262.8	8,403.8	91,221	10,855	586,192	347.1	2,230.6
1996	265.2	8,703.9	94,224	10,825	626,736	355.3	2,363.3
1997	267.7	9,089.5	94,727	10,422	621,754	353.9	2,322.6
1998	270.3	9,479.3	95,146	10,037	568,904	352.0	2,104.7
1999	272.8	9,872.5	96,774	9,802	596,292	354.7	2,185.8
2000	281.4	10,224.8	98,942	9,677	731,831	351.6	2,600.7
2001	284.0	10,269.3	96,320	9,379	731,112	339.2	2,574.3
2002*	294.1	10,446.2	97,642	9,347	754,542	332.0	2,565.6

Source: ¹EIA, *International Gross Domestic Product, Population and General Conversion Factor Information, 2001*

²EIA, *Monthly Energy Review*

³EIA, *Annual Energy Review*

*UEO estimations

Table 1.2 Energy Consumption and Expenditures in Utah, 1970-2002

Year	Population ¹	Gross State Product ²	Energy Consumption ³	Energy Consumption Per Dollar of GSP	Energy Expenditures ³	Per Capita Energy Consumption	Per Capita Energy Expenditures
	Thousands	Million 2002 Dollars	Trillion Btu	Btu per 2002 Dollar	Million 2002 Dollars	Million Btu	2002 Dollars
1970	1,059.3	17,508.6	397.1	22,681.6	1,647.6	374.9	1,555.4
1971	1,101.2	18,394.1	415.2	22,574.7	1,733.8	377.1	1,574.4
1972	1,135.4	19,878.7	428.4	21,549.9	1,804.4	377.3	1,589.2
1973	1,170.0	21,151.3	458.1	21,656.3	1,982.7	391.5	1,694.6
1974	1,200.5	21,878.3	474.0	21,666.7	2,597.0	394.9	2,163.3
1975	1,236.0	22,399.0	481.2	21,481.3	2,753.7	389.3	2,227.9
1976	1,274.9	23,944.8	510.7	21,328.9	2,924.6	400.6	2,294.0
1977	1,319.5	25,813.5	486.8	18,856.8	2,962.4	368.9	2,245.1
1978	1,367.5	27,999.0	511.4	18,265.8	3,120.7	374.0	2,282.1
1979	1,420.2	29,575.9	527.4	17,833.0	3,783.5	371.4	2,664.1
1980	1,461.0	30,260.0	505.7	16,713.0	4,301.9	346.2	2,944.5
1981	1,515.5	31,353.5	478.7	15,267.3	4,305.1	315.9	2,840.7
1982	1,558.3	31,257.6	468.1	14,975.6	4,165.3	300.4	2,672.9
1983	1,594.9	32,173.1	492.1	15,296.7	3,949.1	308.6	2,476.0
1984	1,622.3	34,737.7	505.5	14,551.3	4,121.7	311.6	2,540.6
1985	1,642.9	36,455.6	501.9	13,766.9	3,987.1	305.5	2,426.8
1986	1,662.8	36,200.9	472.6	13,055.4	3,461.1	284.2	2,081.4
1987	1,678.1	36,188.5	464.9	12,846.6	3,392.8	277.0	2,021.8
1988	1,689.4	37,837.9	528.1	13,957.4	3,539.1	312.6	2,094.9
1989	1,705.9	38,412.7	533.8	13,895.3	3,443.0	312.9	2,018.3
1990	1,722.9	40,381.4	544.9	13,493.9	3,535.7	316.3	2,052.2
1991	1,771.9	41,819.1	568.1	13,584.1	3,584.3	320.6	2,022.8
1992	1,821.5	43,268.2	554.3	12,810.7	3,466.8	304.3	1,903.3
1993	1,876.0	45,478.0	581.0	12,774.8	3,468.6	309.7	1,848.9
1994	1,930.4	49,006.3	592.2	12,084.7	3,439.9	306.8	1,782.0
1995	1,976.8	52,565.8	638.4	12,144.8	3,585.5	322.9	1,813.8
1996	2,022.3	57,396.6	666.8	11,617.2	3,945.1	329.7	1,950.8
1997	2,065.4	60,174.6	678.6	11,277.3	3,994.2	328.6	1,933.9
1998	2,100.6	63,778.7	696.0	10,912.1	3,801.4	331.3	1,809.7
1999	2,129.8	66,675.0	689.5	10,341.9	3,910.1	323.8	1,835.9
2000	2,233.2	71,217.3	711.9	9,996.3	4,746.9	318.8	2,125.6
2001*	2,269.8	71,715.9	713.2	9,945.0	4,987.4	314.2	2,197.3
2002*	2,316.0	72,435.0	729.2	10,066.9	5,364.4	314.9	2,316.2

Source: ¹U.S. Census Bureau

²U.S. Bureau of Economic Analysis

³EIA, State Energy Profiles

*UEO estimations for 2002 GSP and 2001-2002 energy expenditures

Table 1.3 U.S. Energy Balance, 1960-2002
Trillion Btu

Year	Production	Consumption	Imports	Exports	Net Imports
1960	42,804	45,087	4,188	1,477	2,710
1961	43,280	45,739	4,437	1,377	3,060
1962	44,877	47,828	4,994	1,473	3,522
1963	47,174	49,646	5,087	1,835	3,251
1964	49,056	51,817	5,447	1,815	3,633
1965	50,676	54,017	5,892	1,829	4,063
1966	53,534	57,017	6,146	1,829	4,317
1967	56,379	58,908	6,159	2,115	4,044
1968	58,225	62,419	6,905	1,998	4,907
1969	60,541	65,621	7,676	2,126	5,551
1970	63,501	67,844	8,342	2,632	5,709
1971	62,723	69,289	9,535	2,151	7,384
1972	63,920	72,704	11,387	2,118	9,269
1973	63,585	75,708	14,613	2,033	12,580
1974	62,372	73,991	14,304	2,203	12,101
1975	61,357	71,999	14,032	2,323	11,709
1976	61,602	76,012	16,760	2,172	14,588
1977	62,052	78,000	19,948	2,052	17,896
1978	63,137	79,986	19,106	1,920	17,186
1979	65,948	80,903	19,460	2,855	16,605
1980	67,241	78,289	15,796	3,695	12,101
1981	67,007	76,335	13,719	4,307	9,412
1982	66,574	73,234	11,861	4,608	7,253
1983	64,106	73,066	11,752	3,693	8,059
1984	68,832	76,693	12,471	3,786	8,685
1985	67,647	76,417	11,781	4,196	7,584
1986	67,087	76,722	14,151	4,021	10,130
1987	67,608	79,156	15,398	3,812	11,586
1988	68,951	82,774	17,296	4,366	12,929
1989	69,364	84,886	18,766	4,661	14,105
1990	70,729	84,605	18,817	4,752	14,065
1991	70,362	84,522	18,335	5,141	13,194
1992	69,933	85,866	19,372	4,937	14,435
1993	68,262	87,579	21,273	4,258	17,014
1994	70,676	89,248	22,390	4,061	18,329
1995	71,156	91,221	22,260	4,511	17,750
1996	72,472	94,224	23,702	4,633	19,069
1997	72,389	94,727	25,215	4,514	20,701
1998	72,787	95,146	26,581	4,299	22,281
1999	71,652	96,774	27,252	3,715	23,537
2000	71,218	98,942	28,974	4,006	24,968
2001	71,372	96,320	30,152	3,764	26,388
2002	70,803	97,642	29,401	3,661	25,740

Source: EIA, *Annual Energy Review*, for 1960-1972
EIA, *Monthly Energy Review*, for 1973-2002

Table 1.4 Utah Energy Balance, 1960-2002
Trillion Btu

Year	Production ¹	Consumption ²	Net Exports (Imports)
1960	773.5	303.4	470.1
1961	736.2	301.1	435.1
1962	685.2	310.3	374.9
1963	705.8	311.9	393.9
1964	722.0	334.7	387.3
1965	477.8	339.7	138.1
1966	407.3	350.8	56.5
1967	377.5	345.4	32.1
1968	399.1	365.6	33.5
1969	373.9	395.9	(-22.0)
1970	396.5	397.1	(-0.6)
1971	386.6	415.2	(-28.6)
1972	409.5	428.4	(-18.9)
1973	493.5	458.1	35.4
1974	544.1	474.0	70.1
1975	584.5	481.2	103.4
1976	604.9	510.7	94.2
1977	638.9	486.8	152.2
1978	659.5	511.4	148.1
1979	677.5	527.4	150.1
1980	656.0	505.7	150.3
1981	797.2	478.7	318.5
1982	775.3	468.1	307.2
1983	613.3	492.1	121.1
1984	655.0	505.5	149.5
1985	732.8	501.9	231.0
1986	1,016.7	472.6	544.1
1987	1,014.5	464.9	549.6
1988	905.7	528.1	377.6
1989	1,010.6	533.8	476.8
1990	1,050.8	544.9	505.9
1991	843.4	568.1	275.3
1992	840.7	554.3	286.4
1993	894.1	581.0	313.2
1994	999.7	592.2	407.5
1995^	985.3	638.4	346.9
1996	1,035.9	666.8	369.1
1997	1,023.5	678.6	344.9
1998	1,049.0	696.0	353.0
1999	1,025.8	689.5	336.3
2000	1,037.5	711.9	325.6
2001*	1,058.1	713.2	344.9
2002*	997.7	729.2	268.5

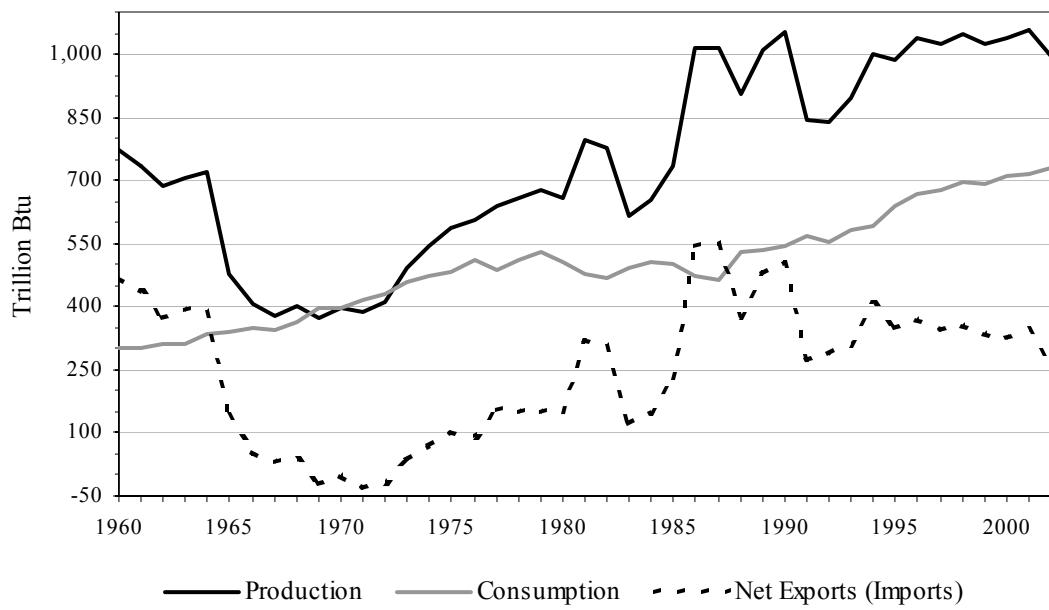
Source: ¹See Table 1.8

²EIA, State Energy Profiles

[^]After 1995, yellowcake (U_3O_8) production data are withheld to avoid disclosure of individual company data. Therefore, they are not included in the total production.

*UEO estimation for consumption

Figure 1.1 Utah Energy Balance, 1960-2002



Source: See Table 1.8
EIA, State Energy Profiles

Table 1.5 U.S. Energy Production by Primary Source, 1960-2002
 Physical Units

Year	Coal	Crude Oil	Natural Gas (Dry)	Natural Gas Plant Liquids	Yellowcake (U ₃ O ₈)
	Million Short Tons	Million Barrels	Billion Cubic Feet	Million Barrels	Million Pounds
1960	434.3	2,574.8	12,228	340.0	35.3
1961	420.4	2,621.8	12,662	361.7	34.7
1962	439.0	2,676.2	13,253	372.7	34.0
1963	477.2	2,752.8	14,076	400.8	28.4
1964	504.2	2,786.7	14,824	422.4	23.7
1965	527.0	2,848.5	15,286	441.7	20.9
1966	546.8	3,027.7	16,467	468.7	21.2
1967	564.9	3,215.7	17,387	514.3	22.5
1968	556.7	3,329.1	18,495	550.5	24.7
1969	571.0	3,371.9	19,832	580.4	23.2
1970	612.7	3,517.5	21,014	605.9	25.8
1971	560.9	3,454.0	21,610	617.9	24.6
1972	602.5	3,455.4	21,624	638.3	25.8
1973	598.6	3,360.9	21,731	634.4	26.5
1974	610.0	3,202.5	20,713	616.1	23.1
1975	654.6	3,056.9	19,236	596.0	23.2
1976	684.9	2,976.3	19,098	587.1	25.5
1977	697.2	3,009.4	19,163	590.6	29.9
1978	670.2	3,178.1	19,122	572.0	37.0
1979	781.1	3,121.5	19,663	578.2	37.5
1980	829.7	3,146.5	19,403	575.7	43.7
1981	823.8	3,128.8	19,181	587.3	38.5
1982	838.1	3,156.9	17,820	565.8	26.9
1983	782.1	3,171.1	16,094	569.0	21.2
1984	895.9	3,249.7	17,466	596.6	14.9
1985	883.6	3,274.4	16,454	587.3	11.3
1986	890.3	3,168.2	16,059	566.1	13.5
1987	918.8	3,047.4	16,621	582.2	13.0
1988	950.3	2,979.2	17,103	594.8	13.1
1989	980.7	2,778.7	17,311	564.3	13.8
1990	1,029.1	2,684.6	17,810	569.0	8.9
1991	996.0	2,707.2	17,698	605.5	8.0
1992	997.5	2,624.6	17,840	621.1	5.7
1993	945.4	2,499.2	18,095	633.6	3.1
1994	1,033.5	2,431.6	18,821	630.4	3.4
1995	1,033.0	2,394.4	18,599	643.1	6.0
1996	1,063.9	2,366.2	18,854	669.8	6.3
1997	1,089.9	2,355.0	18,902	663.2	5.6
1998	1,117.5	2,282.0	19,024	642.0	4.7
1999	1,100.4	2,146.6	18,832	675.3	4.6
2000	1,073.6	2,130.9	19,182	699.4	4.0
2001	1,127.7	2,117.4	19,676	681.8	2.6
2002	1,094.3	2,097.3	19,047	686.2	2.3

Source: EIA, *Annual Energy Review*, for 1960-1972
 EIA, *Monthly Energy Review*, for 1973-2002

Note: Nuclear electric power, hydroelectric power, and other renewable power sources are included in Table 1.9: Net Generation of Electricity.

Table 1.6 Energy Production in Utah by Primary Source, 1960-2002
 Physical Units

Year	Coal ¹	Crude Oil ²	Marketed Natural Gas ³	Yellowcake ⁴ (U ₃ O ₈)
	Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Thousand Pounds
1960	4,955	37,596	51,040	6,539
1961	5,159	33,084	57,175	6,160
1962	4,297	30,953	74,128	5,492
1963	4,359	33,449	77,122	5,526
1964	4,720	28,555	79,675	6,029
1965	4,992	25,319	71,616	2,160
1966	4,636	24,150	70,133	1,254
1967	4,174	24,044	48,965	1,287
1968	4,317	23,504	46,151	1,712
1969	4,657	23,306	46,733	1,140
1970	4,733	23,366	42,781	1,635
1971	4,626	23,630	42,418	1,445
1972	4,802	26,510	39,474	1,496
1973	5,650	32,544	42,715	1,961
1974	6,046	39,443	50,522	1,862
1975	6,937	40,144	55,354	2,015
1976	7,968	35,384	55,860	2,408
1977	8,838	37,316	58,888	2,458
1978	9,253	35,765	58,714	2,813
1979	12,096	27,652	56,873	2,801
1980	13,236	24,979	47,857	2,397
1981	13,808	24,309	58,865	4,487
1982	16,912	23,595	56,368	2,895
1983	11,829	31,045	54,700	1,372
1984	12,259	38,054	73,154	858
1985	12,831	41,080	80,370	1,564
1986	14,269	39,243	90,884	5,767
1987	16,521	35,829	87,331	5,320
1988	18,164	33,365	102,040	2,800
1989	20,517	28,504	120,329	3,800
1990	22,012	27,705	149,271	3,400
1991	21,875	25,928	150,621	0
1992	21,015	24,074	174,781	0
1993	21,723	21,826	227,494	0
1994	24,422	20,668	271,979	0
1995	25,051	19,976	246,751	w
1996	27,071	19,529	250,212	w
1997	26,428	19,593	254,922	w
1998	26,600	19,218	277,625	w
1999	26,491	16,362	263,140	w
2000	26,920	15,609	269,338	w
2001	27,024	15,274	283,482	w
2002	25,299	13,771	274,739	w

Source: ¹UEO coal company questionnaires

²Utah Division of Oil, Gas and Mining

³EIA, *Natural Gas Annual, 2001* and Form EIA-895 (Monthly and Annual Quantity and Value of Natural Gas Production Report)

⁴Form EIA-858 (Uranium Industry Annual Survey)

w = Withheld to avoid disclosure of individual company data

Note: Hydroelectric power and other renewable power sources are included in Table 1.10: Net Generation of Electricity.

Figure 1.2a U.S. Energy Production by Primary Source, 1960-2002

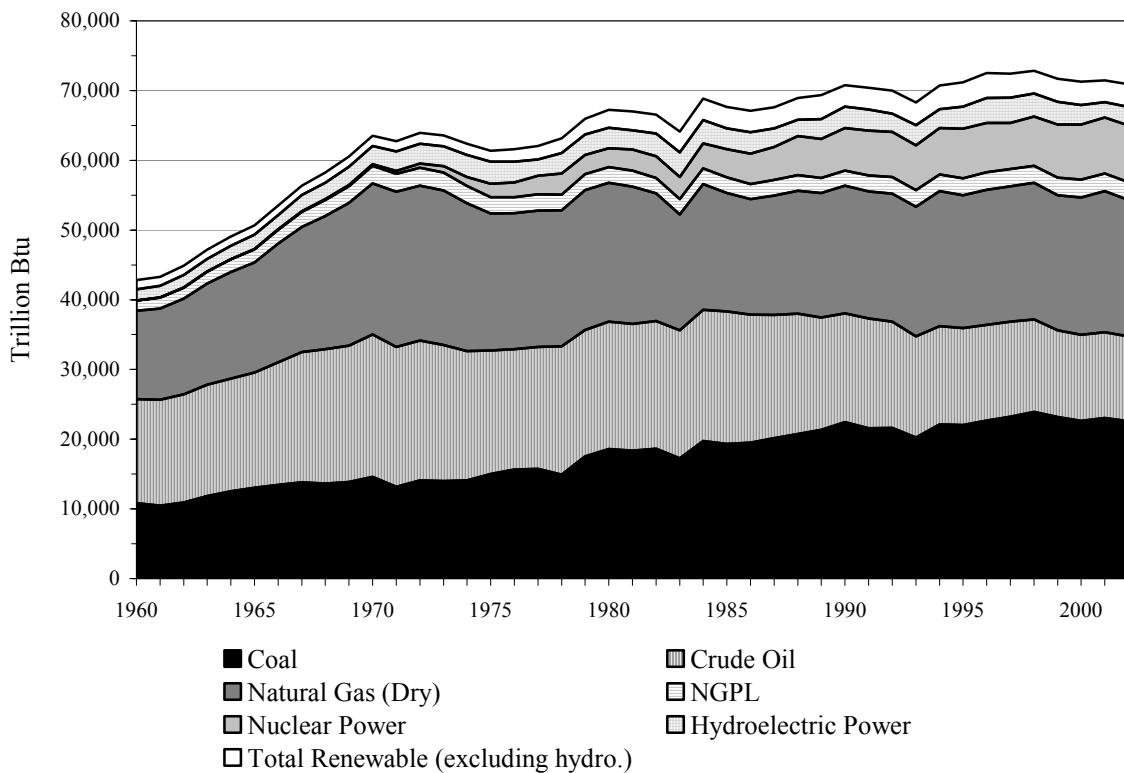
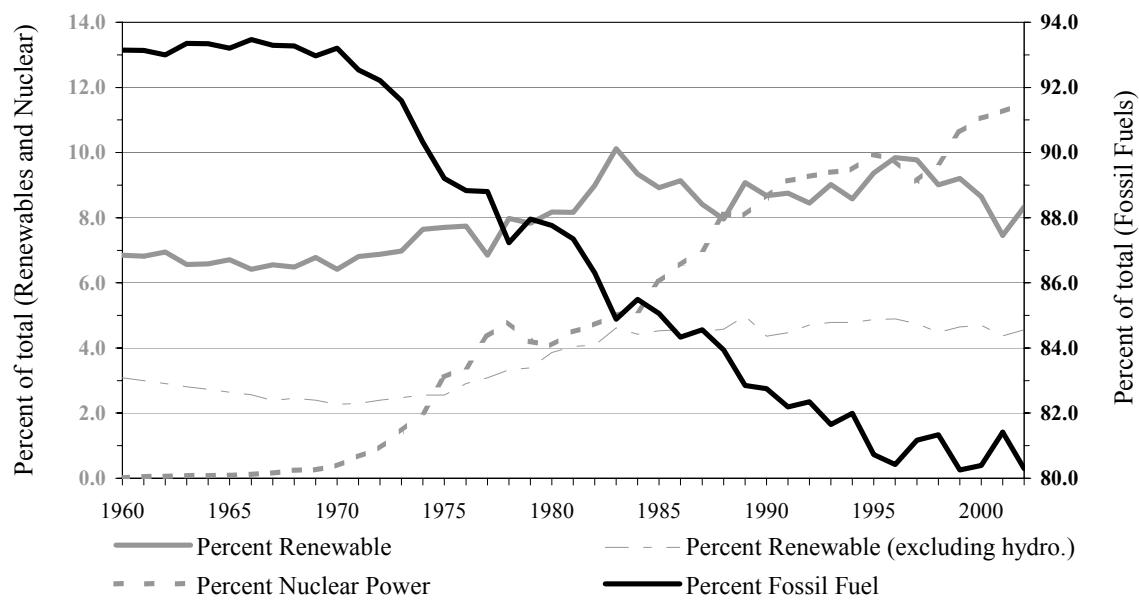


Figure 1.2b Percentage of U.S. Energy Production by Primary Source, 1960-2002



Source: EIA, *Annual Energy Review*, for 1960-1972
EIA, *Monthly Energy Review*, for 1973-2002

Figure 1.3a Energy Production in Utah by Primary Source, 1960-2002

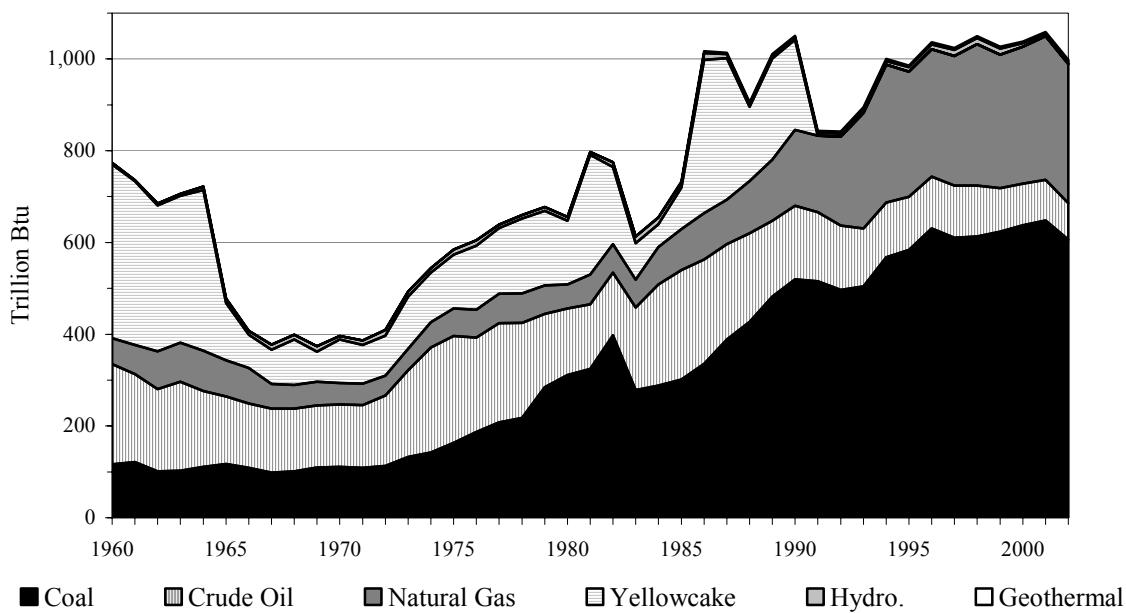
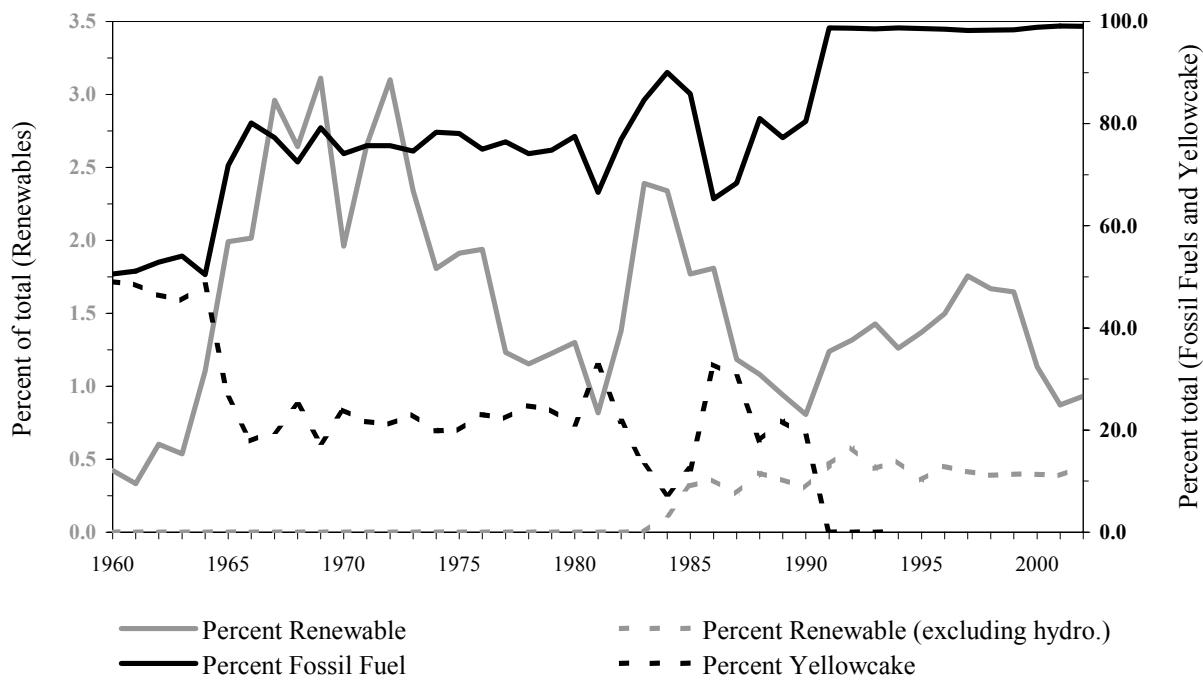


Figure 1.3b Percentage of Energy Production in Utah by Primary Source, 1960-2002



Source: See Table 1.8

Figure 1.4a U.S. Net Generation of Electricity by Energy Source, 1960-2002

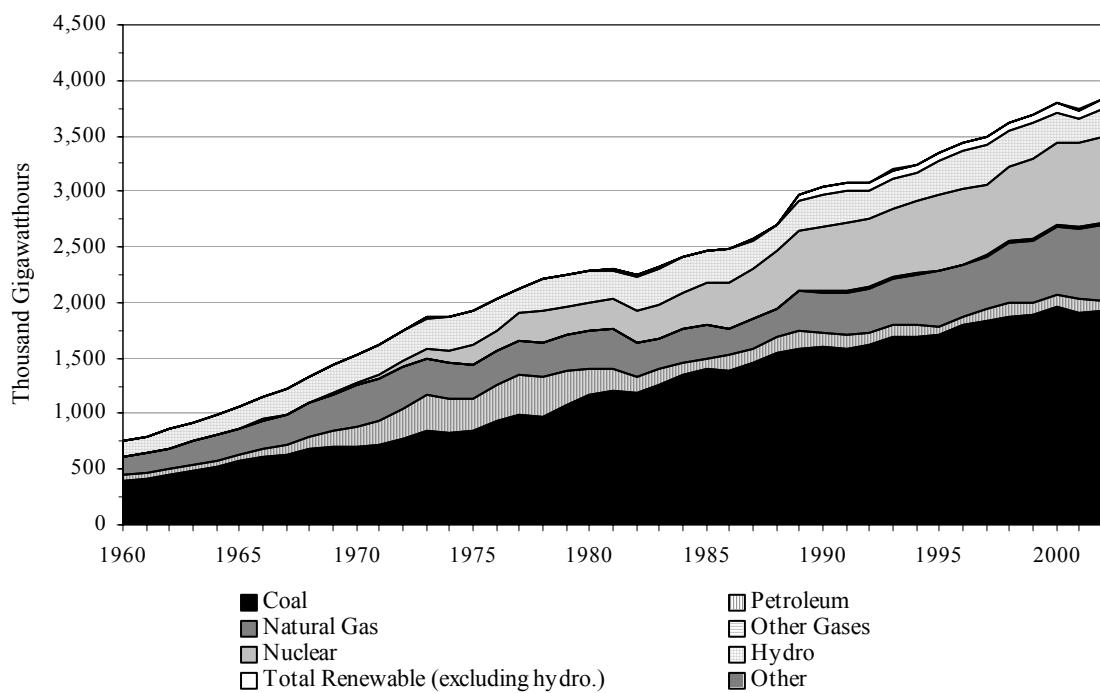
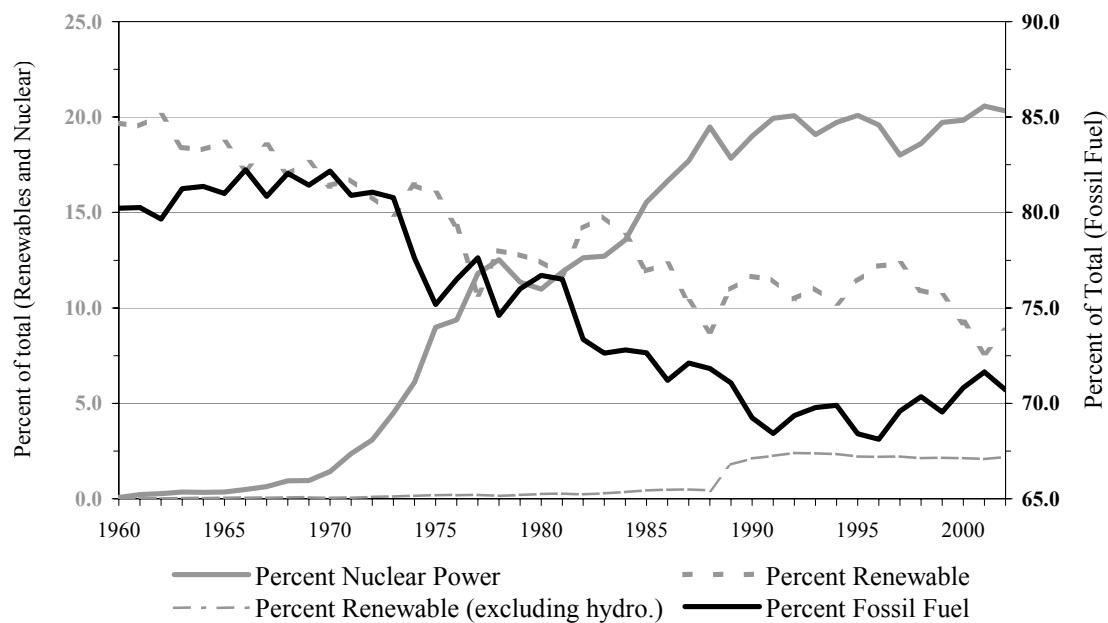


Figure 1.4b Percentage of U.S. Net Generation of Electricity by Energy Source, 1960-2002



Source: EIA, *Annual Energy Review*, for 1960-2002

Figure 1.5a Net Generation of Electricity in Utah by Energy Source, 1960-2002

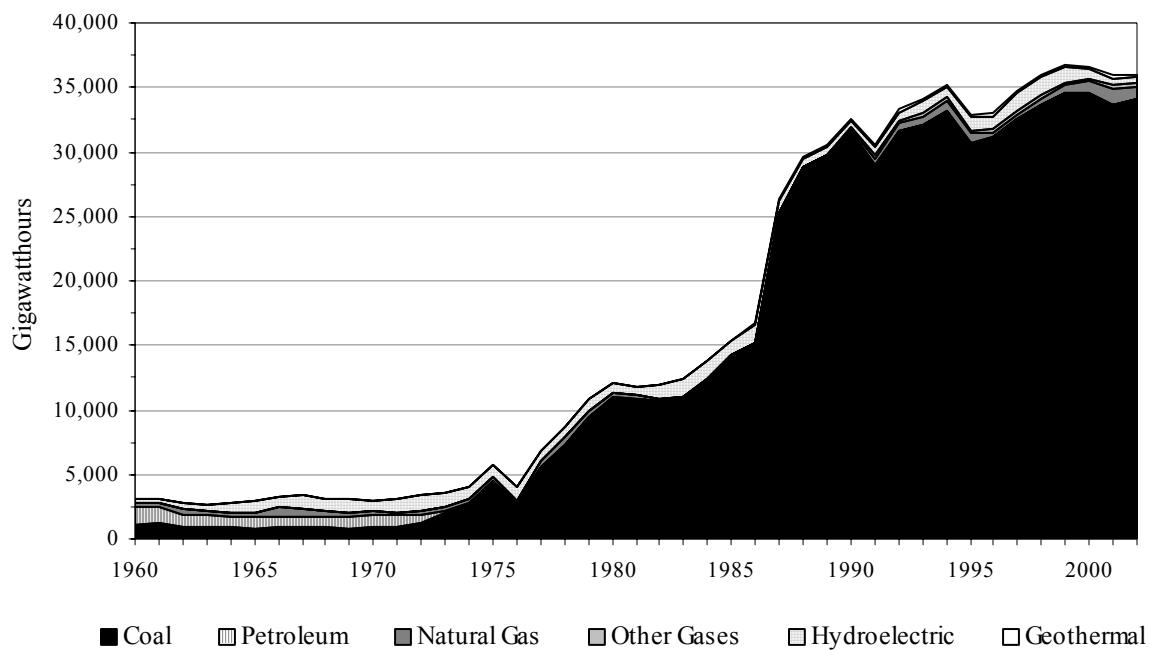
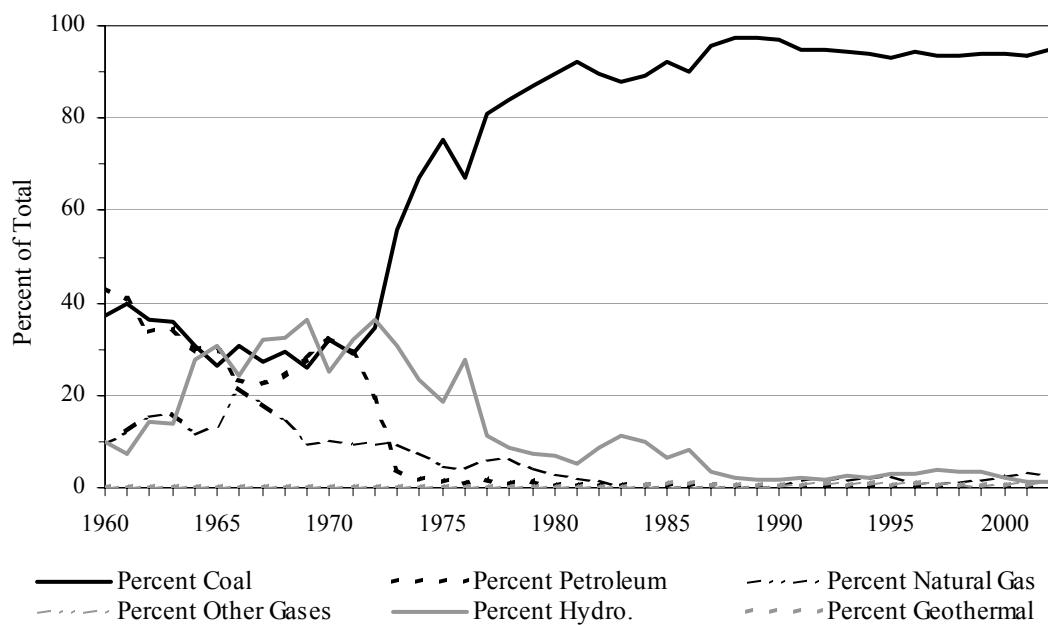


Figure 1.5b Percentage of Net Generation of Electricity in Utah by Energy Source, 1960-2002



Source: EIA, *Electric Power Annual, 2001* and previous issues
EIA, *Electric Power Monthly*, for 2002 data

Table 1.11 U.S. Energy Consumption by Source, 1960-2002

Physical Units

Year	Coal	Petroleum Products	Natural Gas	Hydroelectric	Nuclear	Other Renewables [^]
		Million Short Tons	Million Barrels	Billion Cubic Feet	Thousand Gigawatthours	Thousand Gigawatthours
1960	398.1	3,585.8	11,967	149.4	0.5	0.1
1961	390.4	3,641.3	12,489	155.5	1.7	0.2
1962	402.3	3,796.0	13,267	172.0	2.3	0.2
1963	423.5	3,921.4	13,970	169.0	3.2	0.3
1964	445.7	4,034.2	14,814	180.3	3.3	0.3
1965	472.0	4,202.0	15,280	197.0	3.7	0.5
1966	497.7	4,410.8	16,452	197.9	5.5	0.5
1967	491.4	4,584.5	17,388	224.9	7.7	0.6
1968	509.8	4,901.8	18,632	225.9	12.5	0.8
1969	516.4	5,159.9	20,056	253.5	13.9	0.9
1970	523.2	5,364.5	21,139	251.0	21.8	0.8
1971	501.6	5,552.6	21,793	269.5	38.1	0.8
1972	524.3	5,990.3	22,101	275.9	54.1	1.8
1973	562.6	6,317.3	22,049	272.1	83.5	2.3
1974	558.4	6,078.2	21,223	301.0	114.0	2.8
1975	562.6	5,957.5	19,538	300.0	172.5	3.4
1976	603.8	6,390.8	19,946	283.7	191.1	3.9
1977	625.3	6,727.5	19,521	220.5	250.9	4.1
1978	625.2	6,879.0	19,627	280.4	276.4	3.3
1979	680.5	6,757.1	20,241	279.8	255.2	4.4
1980	702.7	6,242.4	19,877	276.0	251.1	5.5
1981	732.6	5,861.1	19,404	260.7	272.7	6.1
1982	706.9	5,582.9	18,001	309.2	282.8	5.1
1983	736.7	5,559.4	16,835	332.1	293.7	6.5
1984	791.3	5,755.6	17,951	321.2	327.6	8.6
1985	818.0	5,740.1	17,281	281.1	383.7	10.7
1986	804.2	5,942.4	16,221	290.8	414.0	11.5
1987	836.9	6,082.7	17,211	249.7	455.3	12.3
1988	883.6	6,325.7	18,030	222.9	527.0	12.0
1989*	895.0	6,323.7	19,119	269.2	529.4	30.3
1990	904.5	6,200.8	19,174	286.3	576.9	37.1
1991	899.2	6,100.6	19,562	281.5	612.6	41.1
1992	907.7	6,234.0	20,228	245.8	618.8	43.8
1993	944.1	6,291.4	20,790	273.5	610.3	45.7
1994	951.3	6,467.1	21,247	250.6	640.4	45.6
1995	962.1	6,469.5	22,207	302.7	673.4	42.7
1996	1,006.3	6,701.1	22,610	338.1	674.7	44.3
1997	1,029.5	6,796.4	22,737	346.6	628.6	45.7
1998	1,037.1	6,904.8	22,246	313.4	673.7	46.1
1999	1,038.6	7,124.6	22,405	308.6	728.3	48.3
2000	1,084.1	7,210.6	23,368	265.8	753.9	49.4
2001	1,060.1	7,171.8	22,246	204.9	768.8	48.7
2002	1,065.8	7,063.0	22,530	250.7	780.1	52.8

Source: EIA, *Annual Energy Review*, for 1960-1972EIA, *Monthly Energy Review*, for 1973-2002

*Through 1988, electricity data are for generation at electric utilities only. Beginning in 1989, data also include generation at independent power producers.

[^]Includes biomass, geothermal, solar, and wind

Table 1.12 Energy Consumption in Utah by Source, 1960-2002
Physical Units

Year	Coal	Petroleum Products	Natural Gas	Hydroelectric	Geothermal [^]	Net Interstate Sales and Losses
	Thousand Short Tons	Thousand Barrels	Million Cubic Feet	Gigawatthours	Gigawatthours	Gigawatthours
1960	3,449	22,341	69,951	304	0	2,036
1961	3,202	22,288	76,473	231	0	2,484
1962	2,497	23,950	84,928	393	0	4,105
1963	2,374	23,937	95,572	352	0	5,577
1964	2,690	24,063	107,367	765	0	5,179
1965	2,857	25,029	107,891	913	0	3,082
1966	3,003	27,060	103,909	791	0	3,387
1967	2,753	26,761	105,052	1,074	0	3,209
1968	2,803	28,559	109,866	1,017	0	4,673
1969	2,988	30,075	119,880	1,117	0	6,581
1970	3,025	29,450	121,937	738	0	8,216
1971	3,047	31,965	121,403	981	0	8,829
1972	3,024	33,247	124,093	1,220	0	9,610
1973	3,886	34,054	123,106	1,111	0	11,121
1974	4,263	35,571	121,015	941	0	11,456
1975	4,636	36,391	124,160	1,074	0	8,635
1976	4,117	36,961	146,205	1,130	0	14,111
1977	5,429	37,754	106,315	757	0	8,612
1978	5,954	38,701	118,513	734	0	7,439
1979	7,104	38,409	126,047	802	0	2,468
1980	7,106	35,983	115,092	821	0	-278
1981	7,432	30,812	102,240	623	0	4,032
1982	6,787	30,563	117,706	1,024	0	4,610
1983	6,873	32,316	110,185	1,394	0	5,019
1984	7,905	32,129	115,578	1,391	38	-617
1985	8,303	31,809	115,117	1,019	109	-4,228
1986	8,112	34,406	105,175	1,413	171	-8,468
1987	11,807	35,172	98,987	893	127	-36,495
1988	14,513	35,971	108,953	593	174	-40,418
1989	15,044	34,694	113,537	562	173	-40,637
1990	15,738	35,082	116,648	508	152	-45,119
1991	14,834	36,933	132,766	627	186	-40,782
1992	15,719	36,524	122,650	602	233	-45,873
1993	16,063	37,422	138,044	860	187	-47,380
1994	16,603	38,275	137,073	750	233	-47,453
1995	15,675	41,718	156,824	969	168	-39,896
1996	15,615	44,628	160,371	1,049	223	-36,174
1997	16,325	44,526	165,253	1,344	204	-38,579
1998	17,030	45,446	169,776	1,315	195	-40,807
1999	16,611	46,806	159,892	1,255	194	-41,715
2000	17,374	49,179	164,557	751	196	-43,982
2001	17,592	47,939	159,258	508	195	-45,877
2002*	16,434	48,969	158,940	476	214	-47,752

Source: EIA, State Energy Profiles

*UEO estimations

[^]EIA only records data from the Blundell Geothermal Plant and not the Cove Fort Plant. Cove Fort's consumption data have been added to the overall geothermal total for 1992 to present (data obtained from company interviews).

Figure 1.6a U.S. Energy Consumption by Source, 1960-2002

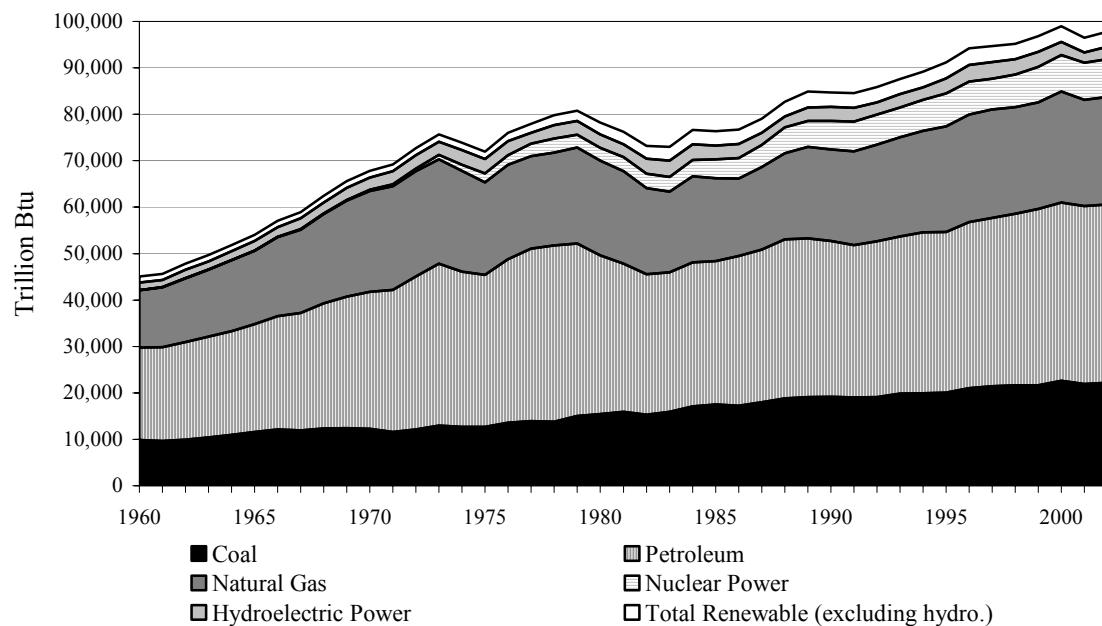
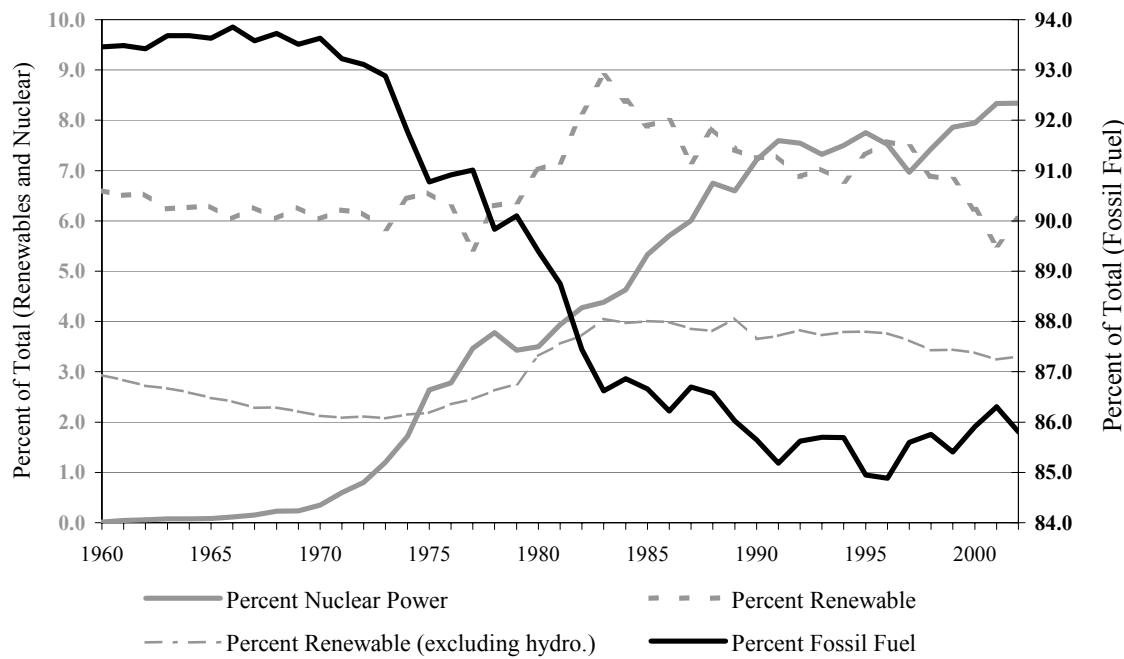


Figure 1.6b Percentage of U.S. Energy Consumption by Source, 1960-2002



Source: EIA, *Annual Energy Review*, for 1960-1972
 EIA, *Monthly Energy Review*, for 1973-2002

Figure 1.7a Energy Consumption in Utah by Energy Source, 1960-2002

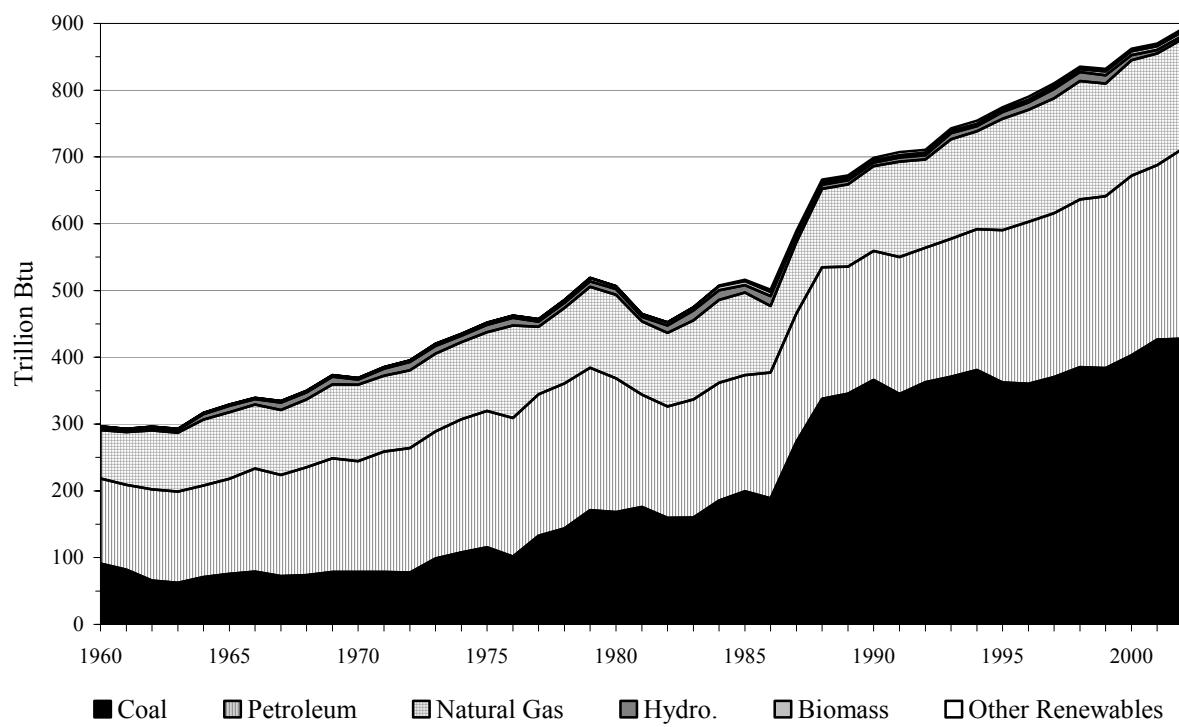
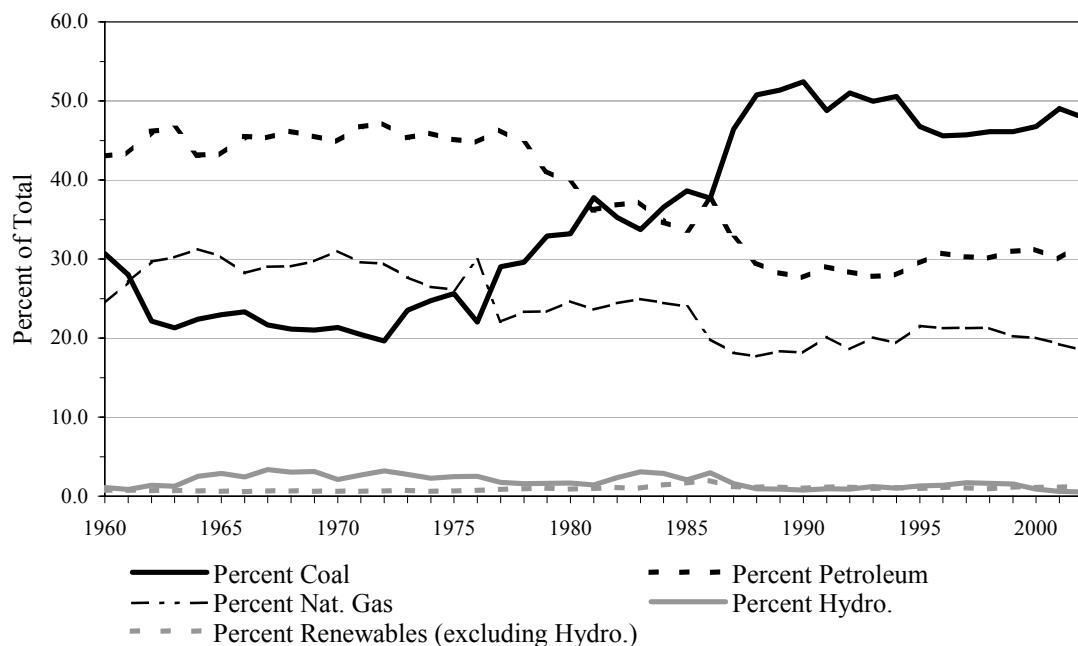


Figure 1.7b Percentage of Energy Consumption in Utah by Energy Source, 1960-2002



Source: EIA, State Energy Profiles

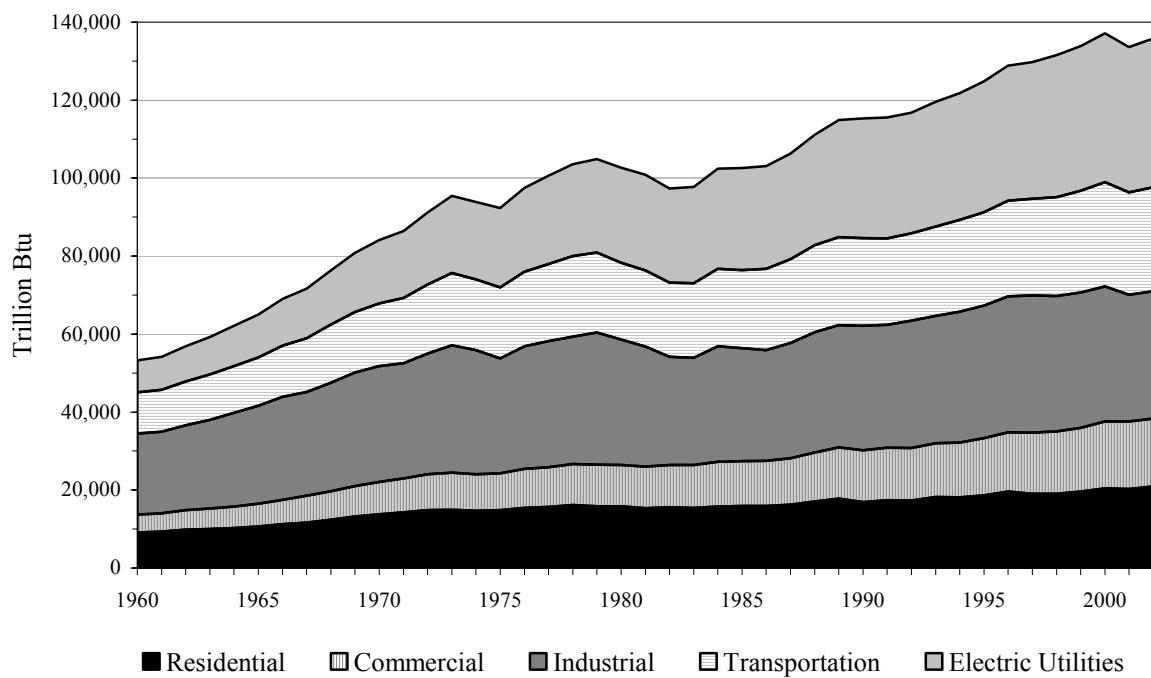
Table 1.15 U.S. Energy Consumption by End Use, 1960-2002
Trillion Btu

Year	Residential	Commercial	Industrial	Transportation	Electric Utilities	Total*
1960	9,078	4,589	20,823	10,597	8,158	45,087
1961	9,325	4,707	20,937	10,770	8,453	45,739
1962	9,825	5,014	21,768	11,221	9,029	47,828
1963	10,034	5,227	22,730	11,655	9,627	49,646
1964	10,291	5,439	24,090	11,998	10,316	51,817
1965	10,689	5,820	25,075	12,434	11,014	54,017
1966	11,218	6,299	26,397	13,102	11,985	57,017
1967	11,670	6,871	26,616	13,752	12,698	58,908
1968	12,368	7,297	27,888	14,866	13,887	62,419
1969	13,205	7,795	29,114	15,506	15,174	65,621
1970	13,798	8,307	29,641	16,098	16,259	67,844
1971	14,278	8,681	29,601	16,729	17,124	69,289
1972	14,891	9,145	30,953	17,716	18,466	72,704
1973	14,930	9,507	32,653	18,612	19,753	75,708
1974	14,683	9,363	31,819	18,119	19,933	73,991
1975	14,842	9,466	29,447	18,244	20,307	71,999
1976	15,441	10,035	31,429	19,099	21,513	76,012
1977	15,689	10,177	32,307	19,820	22,591	78,000
1978	16,156	10,481	32,733	20,615	23,587	79,986
1979	15,842	10,627	33,962	20,471	23,987	80,903
1980	15,848	10,594	32,152	19,696	24,359	78,289
1981	15,353	10,638	30,836	19,506	24,525	76,335
1982	15,577	10,880	27,704	19,069	24,063	73,234
1983	15,459	10,952	27,511	19,141	24,705	73,066
1984	15,777	11,463	29,643	19,808	25,741	76,693
1985	15,928	11,465	28,958	20,070	26,158	76,417
1986	15,927	11,600	28,375	20,817	26,359	76,722
1987	16,233	11,951	29,519	21,455	27,124	79,156
1988	17,069	12,571	30,818	22,312	28,354	82,774
1989	17,774	13,156	31,396	22,551	30,044	84,886
1990	16,900	13,281	31,918	22,526	30,647	84,605
1991	17,414	13,458	31,527	22,122	30,999	84,522
1992	17,339	13,394	32,673	22,459	30,873	85,866
1993	18,249	13,788	32,669	22,883	32,006	87,579
1994	18,135	14,059	33,557	23,503	32,551	89,248
1995	18,653	14,665	33,941	23,960	33,616	91,221
1996	19,643	15,161	34,905	24,511	34,626	94,224
1997	19,067	15,679	35,167	24,808	35,024	94,727
1998	19,051	15,964	34,777	25,357	36,363	95,146
1999	19,634	16,347	34,679	26,108	37,097	96,774
2000	20,453	17,166	34,616	26,705	38,181	98,942
2001	20,256	17,310	32,480	26,274	37,306	96,320
2002	20,943	17,414	32,628	26,654	38,177	97,642

Source: EIA, *Annual Energy Review*, for 1960-1972
EIA, *Monthly Energy Review*, for 1973-2002

*Total of end-use sectors (electric utilities is excluded). Also, the total energy consumption does not equal the sum of the sectoral components due to the use of sector-specific conversion factors for coal and natural gas.

Figure 1.8 U.S. Energy Consumption by End Use, 1960-2002



Source: EIA, *Annual Energy Review*, for 1960-1972
EIA, *Monthly Energy Review*, for 1973-2002

Note: Electric utilities are not an end-use sector, but are included above for comparison.

Table 1.16 Energy Consumption in Utah by End Use, 1960-2002
Trillion Btu

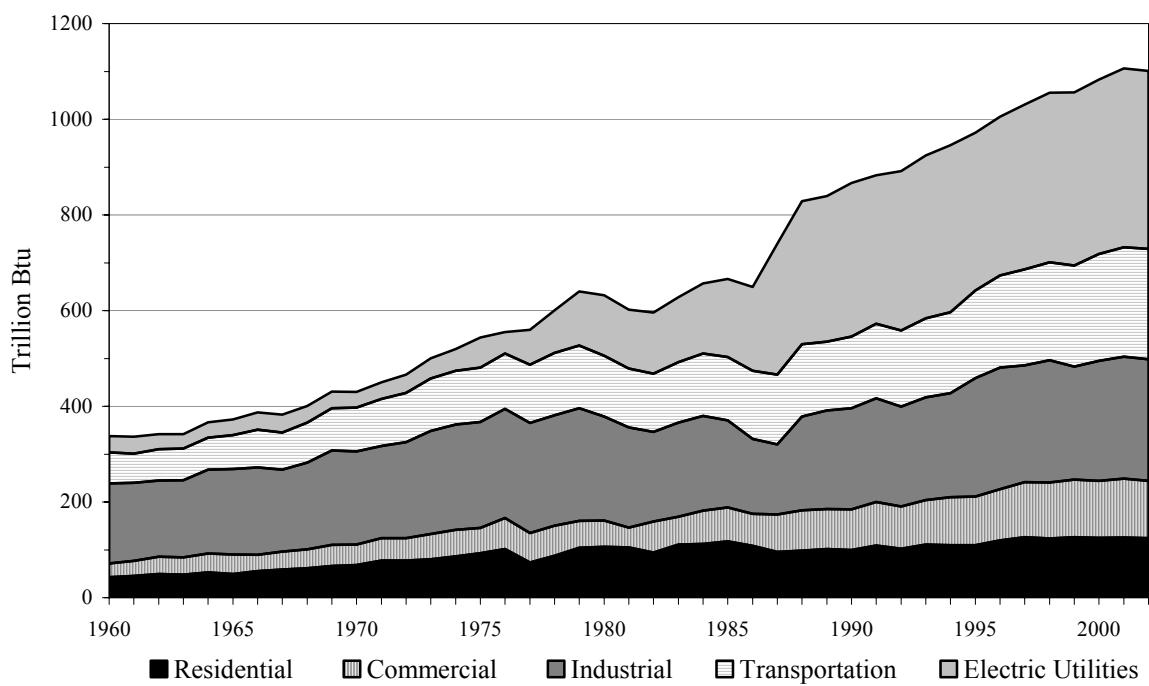
Year	Residential	Commercial	Industrial	Transportation	Electric Utilities	Net Interstate Flows and Losses	Total^
1960	42.7	28.7	167.6	64.5	34.4	6.9	303.5
1961	45.5	31.4	163.4	60.6	35.4	8.5	300.9
1962	49.7	35.6	159.2	65.9	31.6	14.0	310.4
1963	48.2	36.3	160.9	66.5	29.6	19.0	311.9
1964	52.8	39.3	175.7	66.9	31.7	17.7	334.7
1965	49.7	40.7	178.6	70.6	33.1	10.5	339.6
1966	55.2	34.6	182.4	78.8	36.0	11.6	351.0
1967	59.0	37.6	171.0	77.7	37.1	11.0	345.3
1968	61.5	39.7	180.9	83.5	35.2	15.9	365.6
1969	66.3	43.8	197.8	88.0	34.6	22.5	395.9
1970	68.3	42.7	194.5	91.5	33.0	28.0	397.0
1971	77.5	46.9	192.6	98.4	34.6	30.1	415.4
1972	77.3	47.3	200.6	103.2	38.0	32.8	428.4
1973	80.3	52.8	215.5	109.7	42.0	37.9	458.3
1974	86.4	55.3	220.1	112.4	45.4	39.1	474.2
1975	92.9	52.9	221.4	113.8	63.0	29.5	481.0
1976	101.7	64.8	227.9	116.2	44.3	48.1	510.6
1977	73.8	61.5	230.1	121.4	73.2	29.4	486.8
1978	87.9	62.5	231.0	130.2	89.2	25.4	511.6
1979	104.1	56.7	235.0	131.6	112.9	8.4	527.4
1980	106.3	55.0	217.6	126.8	126.3	-0.9	505.7
1981	105.3	41.0	209.5	122.8	123.4	13.8	478.6
1982	94.4	64.8	187.0	121.9	128.1	15.7	468.1
1983	111.1	58.3	196.8	126.1	135.7	17.1	492.3
1984	112.6	69.1	198.4	130.0	146.5	-2.1	510.1
1985	117.9	70.8	182.2	132.3	163.0	-14.4	503.2
1986	108.3	67.1	156.5	142.6	174.7	-28.9	474.5
1987	95.5	78.6	146.0	146.2	273.8	-124.5	466.3
1988	98.6	84.2	195.6	151.2	298.9	-137.9	529.6
1989	101.9	83.2	206.4	143.9	303.9	-138.7	535.4
1990	99.9	84.9	211.3	149.8	321.1	-153.9	545.9
1991	109.1	90.6	216.7	156.0	310.5	-139.1	572.4
1992	102.3	88.2	209.1	159.2	332.8	-156.5	558.8
1993	111.3	92.5	214.6	165.8	340.1	-161.7	584.2
1994	109.6	100.4	217.4	169.2	349.0	-161.9	596.6
1995	110.0	101.2	247.5	183.7	329.8	-136.1	642.4
1996	119.5	107.0	254.3	192.9	331.9	-123.4	673.7
1997	126.2	115.4	243.8	200.8	344.9	-131.6	686.2
1998	124.0	116.5	256.1	204.1	354.9	-139.2	700.7
1999	126.7	120.4	236.0	211.1	362.2	-142.3	694.2
2000	125.3	119.0	250.6	223.3	364.8	-150.1	718.2
2001*	126.0	122.7	255.2	228.5	374.2	-156.6	732.4
2002*	124.7	119.6	254.2	230.8	371.9	-163.0	729.2

Source: EIA, State Energy Profiles

*UEO estimations

[^]Total of end-use sectors (electric utilities is excluded).

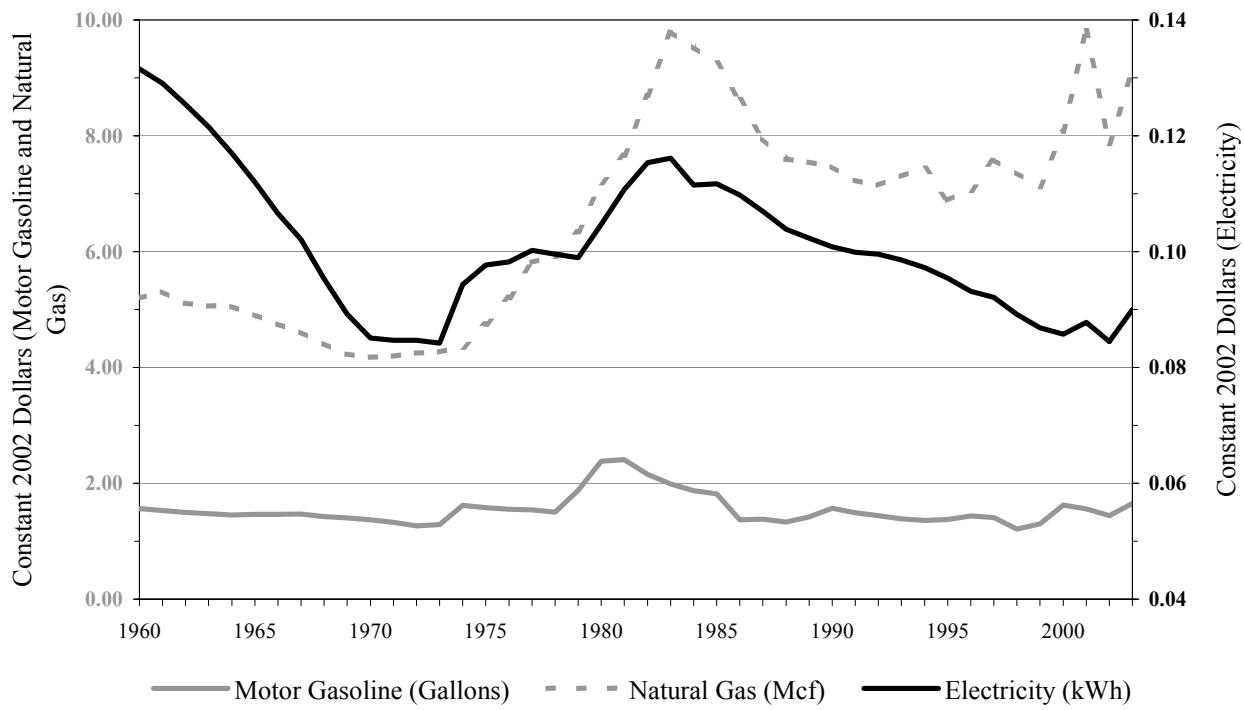
Figure 1.9 Energy Consumption in Utah by End Use, 1960-2002



Source: EIA, State Energy Profiles

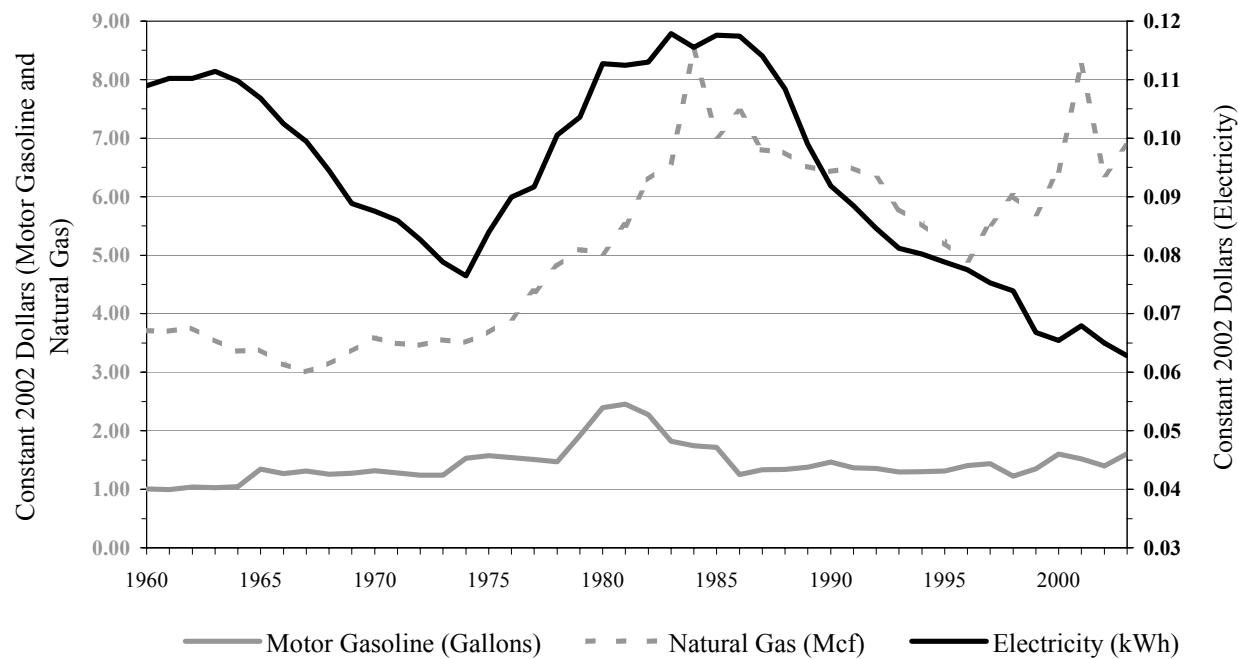
Note: Electric utilities are not an end-use sector, but are included above for comparison.

Figure 1.10 U.S. Average Residential Fuel Prices, 1960-2003



Source: EIA, *Annual Energy Review*, for 1960-1972
EIA, *Monthly Energy Review*, for 1973-2002

Figure 1.11 Average Residential Fuel Prices in Utah, 1960-2003



Source: EIA, State Energy Profiles

Coal

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Table 2.1 U.S. Recoverable Coal Reserves at Producing Mines by State, 1994–2002
Million Short Tons

State	1994	1995	1996	1997	1998	1999	2000	2001	2002	Percent Change 2001 to 2002
Alabama	457	510	452	374	374	436	368	352	366	4.0
Alaska	w	w	w	w	w	w	w	w	w	w
Arizona	w	w	w	w	w	w	w	w	w	w
Arkansas	w	w	w	--	--	--	--	--	w	w
Colorado	676	692	642	568	540	617	584	562	629	11.9
Illinois	963	882	891	745	744	780	716	819	900	9.9
Indiana	304	324	393	313	291	318	318	397	381	-4.0
Kansas	w	w	w	w	w	w	w	w	w	w
Kentucky	1,365	1,279	1,255	1,331	1,180	1,119	948	1,087	1,010	-7.1
<i>Eastern Kentucky</i>	809	763	818	965	759	714	669	829	703	-15.2
<i>Western Kentucky</i>	556	516	437	366	421	405	279	258	307	19.0
Louisiana	w	w	w	w	w	w	w	w	w	w
Maryland	89	58	71	68	64	79	75	72	65	-9.7
Mississippi	--	--	--	--	--	w	w	w	w	w
Missouri	12	2	3	1	3	w	w	w	w	w
Montana	1,283	1,251	1,309	1,168	1,191	1,147	1,104	1,155	1,115	-3.5
New Mexico	1,458	1,480	1,436	1,415	1,385	1,385	1,323	1,404	1,385	-1.4
North Dakota	1,695	1,668	1,301	1,211	1,170	1,188	1,237	1,151	1,211	5.2
Ohio	479	468	415	318	356	383	336	450	356	-20.9
Oklahoma	43	19	19	24	18	35	34	19	18	-5.3
Pennsylvania	913	737	796	905	775	657	506	558	576	3.2
Tennessee	42	68	59	57	27	14	37	24	16	-33.3
Texas	1,026	940	878	922	791	756	794	724	673	-7.0
Utah	423	375	284	433	433	424	429	364	356	-2.2
Virginia	237	203	188	208	190	220	246	240	261	8.8
Washington	w	w	w	w	w	w	w	w	w	w
West Virginia	1,830	1,731	1,731	1,737	1,911	1,465	1,562	1,502	1,433	-4.6
Wyoming	6,999	6,724	6,491	6,465	7,220	7,094	6,864	6,100	6,673	9.4
U.S. Total	21,017	20,105	19,428	19,164	19,322	18,920	18,339	17,801	18,216	2.3

Source: EIA, *Coal Industrial Annual*, 1994–2000

EIA, *Annual Coal Report*, 2001–2002

Note: Recoverable coal reserves at producing mines represent the quantity of coal that can be removed from existing coal reserves at reporting mines.

w = Withheld to avoid disclosure of individual company data

Table 2.2 Recoverable Coal Reserves at Producing Mines, Estimated Recoverable Reserves and Demonstrated Reserve Base by State and Mining Method, 2002
 Million Short Tons

Rank	State	Underground			Surface			Total			Percent of U.S. Total		
		Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base
1	Montana	--	35,923	70,958	1,115	39,145	48,418	1,115	75,067	119,377	6.12	27.86	23.99
2	Illinois	873	27,978	88,077	27	10,083	16,570	900	38,061	104,648	4.94	14.13	21.03
3	Wyoming	--	22,950	42,501	6,673	19,688	22,790	6,673	42,638	65,291	36.63	15.82	13.12
4	West Virginia	1,074	15,863	29,722	359	2,518	3,991	1,433	18,381	33,713	7.87	6.82	6.77
5	Kentucky	812	7,636	17,484	198	7,577	13,130	1,010	15,213	30,614	5.54	5.65	6.15
	<i>Eastern Kentucky</i>	<i>535</i>	<i>833</i>	<i>1,491</i>	<i>168</i>	<i>5,298</i>	<i>9,486</i>	<i>703</i>	<i>6,131</i>	<i>10,977</i>	<i>3.86</i>	<i>2.28</i>	<i>2.21</i>
	<i>Western Kentucky</i>	<i>277</i>	<i>6,803</i>	<i>15,993</i>	<i>30</i>	<i>2,279</i>	<i>3,644</i>	<i>307</i>	<i>9,082</i>	<i>19,637</i>	<i>1.69</i>	<i>3.37</i>	<i>3.95</i>
6	Pennsylvania	468	10,880	23,541	108	1,074	4,297	576	11,954	27,838	3.16	4.44	5.59
7	Ohio	214	7,757	17,631	141	3,789	5,788	356	11,546	23,419	1.95	4.28	4.71
8	Colorado	429	6,120	11,661	199	3,752	4,769	629	9,872	16,430	3.45	3.66	3.30
9	Texas	--	--	--	673	9,668	12,559	673	9,668	12,559	3.69	3.59	2.52
10	New Mexico	w	2,860	6,199	w	4,121	6,051	1,385	6,981	12,249	7.60	2.59	2.46
11	Indiana	223	3,645	8,801	158	488	835	381	4,134	9,637	2.09	1.53	1.94
12	North Dakota	--	--	--	1,211	6,993	9,166	1,211	6,993	9,166	6.65	2.60	1.84
13	Alaska	--	2,745	5,423	w	548	692	w	3,293	6,115	w	1.22	1.23
14	Missouri	--	689	1,479	w	3,159	4,512	w	3,848	5,991	w	1.43	1.20
15	Utah	w	2,582	5,267	w	212	268	356	2,794	5,534	1.95	1.04	1.11
16	Alabama	344	553	1,097	21	2,295	3,221	366	2,848	4,318	2.01	1.06	0.87
17	Iowa	--	807	1,732	--	320	457	--	1,127	2,189	--	0.42	0.44
18	Virginia	220	700	1,247	41	386	603	261	1,086	1,850	1.43	0.40	0.37
19	Oklahoma	w	575	1,233	w	230	328	18	804	1,562	0.10	0.30	0.31
20	Washington	--	674	1,332	w	18	23	w	693	1,356	w	0.26	0.27
21	Kansas	--	--	--	w	681	973	w	681	973	w	0.25	0.20
22	Tennessee	5	283	516	10	184	271	16	467	787	0.09	0.17	0.16
23	Maryland	w	327	597	w	49	72	65	376	669	0.36	0.14	0.13
24	Louisiana	--	--	--	w	323	437	w	323	437	w	0.12	0.09
25	Arkansas	--	127	272	w	101	144	w	228	417	w	0.08	0.08
26	South Dakota	--	--	--	--	277	366	--	277	366	--	0.10	0.07
27	Michigan	--	55	123	--	3	5	--	59	128	--	0.02	0.03
28	Arizona	--	--	--	w	30	38	w	30	38	w	0.01	0.01
29	Oregon	--	7	15	--	2	3	--	9	17	--	0.00	0.00
30	North Carolina	--	5	11	--	--	--	--	5	11	--	0.00	0.00
31	Idaho	--	2	4	--	--	--	--	2	4	--	0.00	0.00
32	Georgia	--	1	2	--	1	2	--	2	4	--	0.00	0.00
	Appalachian Total	w	37,202	75,855	w	15,594	27,731	w	52,796	103,586	w	19.59	20.81
	Interior Total	w	40,679	117,710	w	27,335	40,464	w	68,015	158,178	w	25.24	31.78
	Western Total	w	73,863	143,360	w	74,786	92,584	w	148,649	235,943	w	55.17	47.41
	East of the Mississippi R.	w	75,683	188,849	w	28,447	48,785	w	104,132	237,636	w	38.65	47.75
	West of the Mississippi R.	w	76,061	148,076	w	89,268	111,994	w	165,328	260,071	w	61.36	52.25
	U.S. Total	5,231	151,744	336,928	12,985	117,713	160,780	18,216	269,457	497,708			

Source: EIA, Annual Coal Report, 2002

Note: Recoverable coal reserves at producing mines represent the quantity of coal that can be removed from existing coal reserves at reporting mines. Estimated recoverable reserves include the coal in the demonstrated reserve base considered recoverable after excluding coal estimated to be unavailable due to land use restrictions or currently economically unattractive for mining, and after applying assumed mining recovery rates. The demonstrated reserve base includes publicly available data on coal mapped to measured and indicated degrees of accuracy and found at depths and in coalbed thicknesses considered technologically minable at the time of determinations.

w = Withheld to avoid disclosure of individual company data

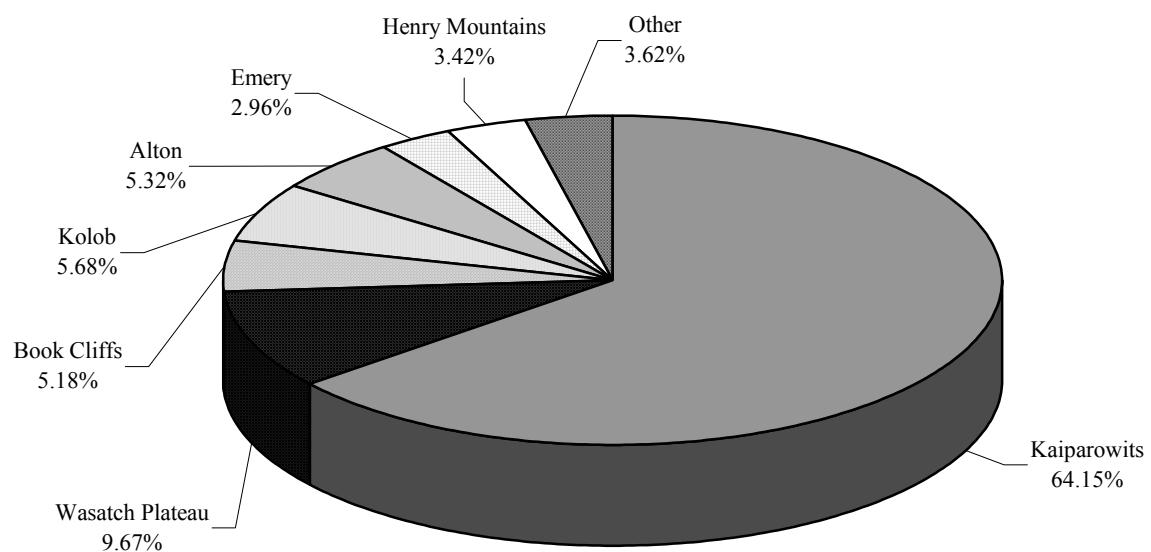
Table 2.3 Utah Coal Reserves by Coal Field, 2002
 Million Short Tons

Coal Field	Original Principal Reserves	Original Recoverable Reserves	Cumulative Production 1870-2002	Remaining Recoverable Reserves	% of Remaining Recoverable Reserves
Kaiparowits	22,740.0	9,096.0	0.1	9,095.9	64.2
Wasatch Plateau	6,378.9	1,913.7	543.3	1,370.4	9.7
Book Cliffs	3,527.3	1,033.5	298.9	734.6	5.2
Kolob	2,014.3	805.9	0.8	805.1	5.7
Alton	1,509.4	754.7	0.0	754.7	5.3
Emery	1,430.4	429.1	9.5	419.6	3.0
Henry Mountains	925.5	484.7	0.0	484.7	3.4
Sego	696.3	208.9	2.7	206.2	1.5
Mt. Pleasant	249.1	99.6	0.0	99.6	0.7
Tabby Mountain	231.2	69.4	0.0	69.4	0.5
Coalville	186.0	55.8	4.3	51.5	0.4
Vernal	177.1	53.2	0.3	52.9	0.4
Salina Canyon	86.4	30.2	0.4	29.8	0.2
Wales	12.2	3.7	0.7	3.0	*
Sterling	2.0	0.6	0.1	0.5	*
Harmony	1.3	0.4	0.0	0.4	*
Lost Creek	1.1	0.4	0.0	0.4	*
Total	40,168.5	15,039.8	861.2	14,178.6	

Source: Tabet, David E., Utah Geological Survey unpublished report for reserves data; UEO coal company questionnaires for production data

*Value less than 0.1 percent

Figure 2.1 Remaining Recoverable Reserves by Utah Coal Field, 2002



Source: Tabet, David E., Utah Geological Survey unpublished report

Table 2.4 Utah Coal Reserves by County, 2002
 Million Short Tons

Coal Field	Original Principal Reserves	Original Recoverable Reserves	Cumulative Production 1870-2002	Remaining Recoverable Reserves	% of Remaining Recoverable Reserves
Kane	18,934.0	7,724.6	0.1	7,724.5	54.5
Carbon	4,993.6	1,475.8	417.5	1,058.3	7.5
Emery	4,130.1	1,236.6	340.1	896.5	6.3
Garfield	7,493.1	3,106.3	0.0	3,106.3	21.9
Sevier	2,073.1	626.2	95.5	530.7	3.7
Iron	650.8	260.2	0.8	259.5	1.8
Sanpete	489.5	171.8	0.7	171.1	1.2
Grand	696.3	208.9	2.7	206.2	1.5
Summit	186.0	55.8	4.3	51.5	0.4
Wasatch	177.3	53.2	0.0	53.2	0.4
Uintah	177.1	53.2	0.3	52.9	0.4
Washington	86.1	34.4	0.0	34.4	0.2
Duchesne	53.9	16.2	0.0	16.2	0.1
Wayne	27.0	16.2	0.0	16.2	0.1
Morgan	1.1	0.4	0.0	0.4	*
Total	40,168.5	15,039.8	861.2	14,178.6	

Source: Tabet, David E., Utah Geological Survey unpublished report for reserves data; UEO coal company questionnaires for production data

*Value less than 0.01 percent

Table 2.5

Utah Coal Reserves by Landownership, 2002

Million Short Tons

Coal Field	Original Principal Reserves	Remaining Recoverable Reserves	Surface Ownership			Mineral Ownership		
			% Federal	% Private	% State	% Federal	% Private	% State
Kaiparowits	22,740.0	9,095.9	99	1	0	99	1	0
Wasatch Plateau	6,378.9	1,370.4	75	1	24	78	3	19
Book Cliffs	3,527.3	734.6	61	9	30	79	11	10
Kolob	2,014.3	805.1	20	7	73	59	13	28
Alton	1,509.4	754.7	75	2	23	81	4	15
Emery	1,430.4	419.5	68	9	23	70	11	19
Henry Mountains	925.5	484.7	88	10	2	88	11	1
Sego	696.3	206.2	85	11	4	86	11	3
Mt. Pleasant	249.1	99.6	82	1	17	87	1	12
Salina Canyon	86.4	29.8	68	0	32	79	0	21
Wales	12.2	3.0	78	4	18	79	4	17
Others	598.7	175.1	72	6	22	80	5	15
Total	40,168.5	14,178.6	73	5	22	80	6	13

Source: Tabet, David E., Utah Geological Survey unpublished report for reserves data; UEO coal company questionnaires for production data

Table 2.6 U.S. Coal Production and Number of Mines by State and Mine Type, 2002

Rank	State	Underground		Surface		Total	
		Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
			Thousand Short Tons		Thousand Short Tons		Thousand Short Tons
1	Wyoming	--	--	18	373,161	18	373,161
2	West Virginia	180	87,918	111	62,160	291	150,078
3	Kentucky - Total	233	75,589	194	48,553	427	124,142
	Eastern Kentucky	219	56,413	180	42,984	399	99,398
	Western Kentucky	14	19,176	14	5,569	28	24,744
4	Pennsylvania	69	55,781	185	12,612	254	68,393
5	Texas	--	--	12	45,247	12	45,247
6	Montana	--	--	6	37,386	6	37,386
7	Indiana	6	7,909	28	27,428	34	35,337
8	Colorado	8	25,332	5	9,771	13	35,103
9	Illinois	15	26,931	7	6,383	22	33,314
10	North Dakota	--	--	4	30,799	4	30,799
11	Virginia	95	20,491	42	9,465	137	29,956
12	New Mexico	1	1,753	6	27,163	7	28,916
13	Utah	11	25,021	1	278	12	25,299
14	Ohio	9	10,851	51	10,306	60	21,157
15	Alabama	9	14,916	32	4,015	41	18,931
16	Arizona	--	--	2	12,804	2	12,804
17	Washington	--	--	1	5,827	1	5,827
18	Maryland	3	3,328	14	1,820	17	5,147
19	Louisiana	--	--	2	3,803	2	3,803
20	Tennessee	12	1,085	11	2,081	23	3,166
21	Mississippi	--	--	1	2,305	1	2,305
22	Oklahoma	1	463	5	943	6	1,406
23	Alaska	--	--	1	1,146	1	1,146
24	Missouri	--	--	2	248	2	248
25	Kansas	--	--	1	205	1	205
26	Arkansas	1	1	3	13	4	14
	Appalachian	596	250,783	626	145,443	1,222	396,226
	Interior	37	54,480	75	92,144	112	146,623
	Western	20	52,106	44	498,335	64	550,441
	East of Mississippi R.	631	304,799	676	187,128	1,307	491,926
	West of Mississippi R.	22	52,570	69	548,794	91	601,364
	U.S. Subtotal	653	357,369	745	735,922	1,398	1,093,290
	Refuse Recovery	--	--	--	--	27	988
	U.S. Total	653	357,369	745	735,922	1,425	1,094,278

Source: EIA, *Annual Coal Report, 2002*

Utah data from UEO coal company questionnaires

Table 2.7 U.S. Coal Production by State, 1994-2002

Thousand Short Tons

2002 Rank	State	1994	1995	1996	1997	1998	1999	2000	2001	2002	Percent Change 2001to 2002
1	Wyoming	237,092	263,822	278,440	281,881	314,409	337,119	338,900	368,749	373,161	1.2%
2	West Virginia	161,776	162,997	170,433	173,743	171,145	157,978	158,257	162,631	150,078	-7.7%
3	Kentucky	161,642	153,739	152,425	155,853	150,295	139,626	130,688	134,298	124,142	-7.6%
	Eastern Kentucky	124,447	118,541	116,951	120,918	116,654	110,043	104,901	109,098	99,398	-8.9%
	Western Kentucky	37,195	35,198	35,474	34,936	33,641	29,583	25,787	24,736	24,744	0.0%
4	Pennsylvania	62,237	61,576	67,942	76,198	81,036	76,399	74,619	74,784	68,393	-8.5%
5	Texas	52,346	52,684	55,164	53,328	52,583	53,072	49,498	45,042	45,247	0.5%
6	Montana	41,640	39,451	37,891	41,005	42,840	41,102	38,352	39,143	37,386	-4.5%
7	Indiana	30,927	26,007	29,670	35,497	36,803	34,004	27,965	36,738	35,337	-3.8%
8	Colorado	25,304	25,710	24,886	27,449	29,631	29,989	29,137	33,372	35,103	5.2%
9	Illinois	52,797	48,180	46,656	41,159	39,732	40,417	33,444	33,783	33,314	-1.4%
10	North Dakota	32,286	30,112	29,861	29,580	29,912	31,135	31,270	30,475	30,799	1.1%
11	Virginia	37,129	34,099	35,590	35,837	33,747	32,294	32,834	33,060	29,956	-9.4%
12	New Mexico	28,041	26,813	24,067	27,025	28,597	29,156	27,323	29,618	28,916	-2.4%
13	Utah	24,422	25,051	27,071	26,428	26,600	26,491	26,920	27,024	25,299	-6.4%
14	Ohio	29,897	26,118	28,572	29,154	28,048	22,480	22,269	25,400	21,157	-16.7%
15	Alabama	23,266	24,640	24,637	24,468	23,013	19,504	19,324	19,513	18,931	-3.0%
16	Arizona	13,056	11,947	10,442	11,723	11,315	11,787	13,111	13,418	12,804	-4.6%
17	Washington	4,893	4,868	4,565	4,495	4,638	4,101	4,270	4,624	5,827	26.0%
18	Maryland	3,632	3,667	4,093	4,160	4,060	3,837	4,546	4,644	5,147	10.8%
19	Louisiana	3,463	3,719	3,221	3,545	3,216	2,953	3,699	3,715	3,803	2.4%
20	Tennessee	2,987	3,221	3,651	3,300	2,696	3,037	2,669	3,324	3,166	-4.8%
21	Mississippi	--	--	--	--	--	18	902	604	2,305	281.8%
22	Oklahoma	1,911	1,876	1,701	1,621	1,661	1,661	1,588	1,714	1,406	-18.0%
23	Alaska	1,567	1,698	1,481	1,450	1,344	1,565	1,641	1,514	1,146	-24.3%
24	Missouri	838	548	710	401	372	392	436	366	248	-32.3%
25	Kansas	284	285	232	360	341	409	201	176	205	16.2%
26	Arkansas	51	29	21	18	24	22	12	17	14	-19.5%
27	Iowa	46	--	--	--	--	--	--	--	--	--
	Appalachian	445,370	434,860	451,868	467,778	460,399	425,572	419,419	432,453	396,226	-8.4%
	Interior	179,858	168,526	172,848	170,864	168,374	162,531	143,532	146,893	146,623	-0.2%
	Western	408,299	429,472	438,705	451,036	489,287	512,447	510,925	547,937	550,441	0.5%
	East of Mississippi R.	566,289	544,246	563,668	579,369	570,576	529,594	507,517	528,778	491,926	-7.0%
	West of Mississippi R.	467,238	488,612	499,752	510,307	547,484	570,955	566,358	598,969	601,364	0.4%
	U.S. Total*	1,033,527	1,032,858	1,063,420	1,089,677	1,118,060	1,100,550	1,073,875	1,127,746	1,093,290	-3.1%

Source: EIA, *Coal Industrial Annual*, 1994-2000EIA, *Annual Coal Report*, 2001-2002

Utah data from UEO coal company questionnaires

*Does not include refuse recovery

Table 2.8 Net Coal Production in Utah by Coal Mine, 2002
 Thousand Short Tons

Company	Mine	County	Coal Field	Production
Andalex Resources Inc.	Aberdeen	Carbon	Book Cliffs	37
	Pinnacle	Carbon	Book Cliffs	662
Canyon Fuel Co.	Dugout Canyon	Carbon	Book Cliffs	2,080
	Skyline #3	Emery	Wasatch Plateau	3,477
	Sufco	Sevier	Wasatch Plateau	7,600
Consolidation Coal Co.	Emery Deep	Emery	Emery	26
Co-op Mining Co.	Bear Canyon #1	Emery	Wasatch Plateau	957
Energy West Mining Co.	Deer Creek	Emery	Wasatch Plateau	3,984
Genwal Resources Inc.	Crandall Canyon	Emery	Wasatch Plateau	3,248
Hidden Splender Resources Inc.	Horizon	Carbon	Wasatch Plateau	110
Lodestar Energy Inc.	Whisky Creek #1	Carbon	Wasatch Plateau	278
West Ridge Resources	West Ridge	Carbon	Book Cliffs	2,840
Total				25,299

Source: UEO coal company questionnaires

Table 2.9 Coal Production and Miner Productivity in Utah, 1960-2002

Year	Number of Active Mines	Production	Average Daily Work Force	Average Number of Days Worked	Average Tons per Man-Day	Average Price F.O.B. Mine	Value of Coal Produced
	Thousand Short Tons					Dollars per Short Ton	Million Dollars
1960	45	4,955	2,418	191	10.73	6.35	31.46
1961	50	5,159	2,206	201	11.63	6.03	31.11
1962	38	4,297	2,034	169	12.50	5.40	23.20
1963	36	4,359	1,596	188	14.53	5.22	22.75
1964	35	4,720	1,679	201	13.99	7.03	33.18
1965	31	4,992	1,495	212	15.75	6.37	31.80
1966	25	4,636	1,374	212	15.92	5.77	26.75
1967	24	4,174	1,238	210	16.06	5.82	24.29
1968	23	4,317	1,155	224	16.69	5.77	24.91
1969	21	4,657	1,193	236	16.54	6.31	29.39
1970	20	4,733	1,469	226	14.26	7.28	34.46
1971	22	4,626	1,430	212	15.26	7.37	34.09
1972	22	4,802	1,582	225	13.49	8.93	42.88
1973	16	5,650	1,603	239	14.75	11.19	63.22
1974	15	6,046	1,514	220	18.15	12.24	74.00
1975	20	6,937	2,550	197	13.81	19.84	137.63
1976	24	7,968	2,614	221	13.79	22.93	182.71
1977	26	8,838	2,703	193	16.94	20.32	179.59
1978	28	9,253	3,424	176	15.35	21.52	199.12
1979	25	12,096	3,656	231	14.32	22.71	274.70
1980	29	13,236	3,512	229	16.46	25.63	339.24
1981	28	13,808	4,166	209	15.86	26.87	371.02
1982	29	16,912	4,296	223	17.65	29.42	497.55
1983	30	11,829	2,707	191	22.88	28.32	335.00
1984	28	12,259	2,525	192	25.29	29.20	357.96
1985	24	12,831	2,563	213	23.50	27.69	355.29
1986	27	14,269	2,881	205	24.16	27.64	394.40
1987	22	16,521	2,650	203	30.71	25.67	424.09
1988	21	18,164	2,559	232	30.60	22.85	415.05
1989	20	20,517	2,471	235	35.33	22.00	451.37
1990	18	22,012	2,791	234	33.70	21.78	479.42
1991	16	21,875	2,292	249	38.33	21.56	471.63
1992	16	21,015	2,106	243	41.06	21.83	458.76
1993	15	21,723	2,161	230	43.71	21.17	459.88
1994	14	24,422	2,024	228	52.92	20.07	490.15
1995	13	25,051	1,989	225	55.98	17.11	428.62
1996	12	27,071	2,077	235	55.46	18.50	500.81
1997	15	26,428	2,091	247	51.17	18.34	484.69
1998	15	26,600	1,950	248	55.00	17.83	474.28
1999	14	26,491	1,843	260	55.28	17.36	459.88
2000	14	26,920	1,672	253	63.64	16.93	455.76
2001	12	27,024	1,564	256	67.50	17.76	479.95
2002	12	25,299	1,525	191	86.86	18.47	467.27

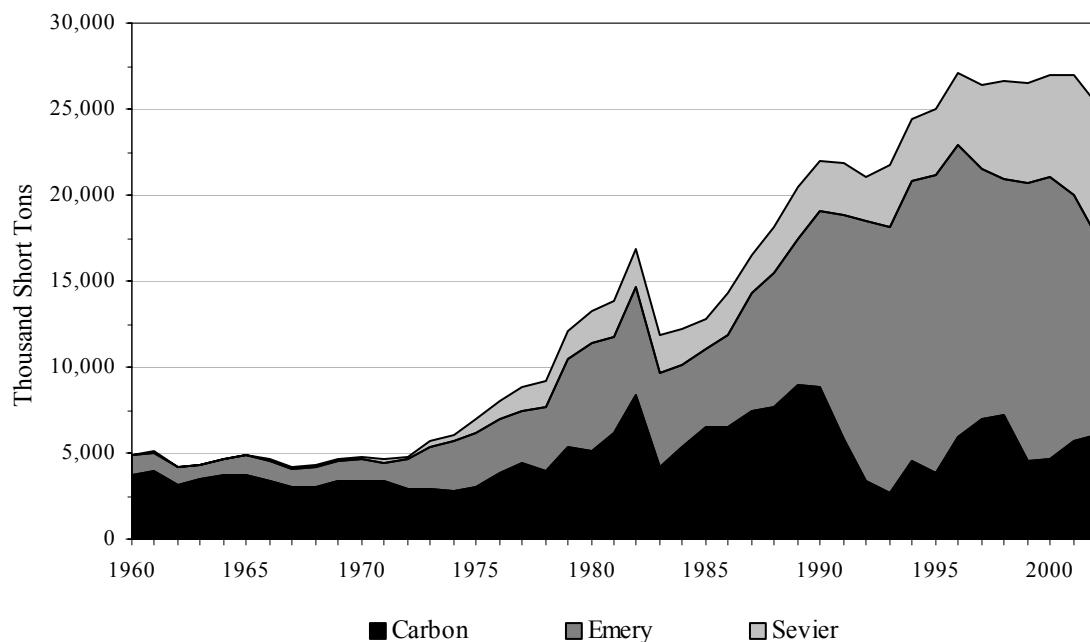
Source: UEO coal company questionnaires

Table 2.10 Coal Production in Utah by County, 1960-2002
Thousand Short Tons

Year	Carbon	Emery	Sevier	Summit	Iron	Kane	Others	Total
1870-1959	211,028	49,166	4,046	4,012	521	45	2,846	271,664
1960	3,698	1,137	49	20	50	0	1	4,955
1961	3,916	1,124	47	20	52	0	0	5,159
1962	3,105	1,077	49	20	46	0	0	4,297
1963	3,493	752	47	18	48	1	0	4,359
1964	3,752	848	47	17	54	2	0	4,720
1965	3,779	1,101	61	13	36	2	0	4,992
1966	3,380	1,170	65	15	4	2	0	4,636
1967	2,971	1,113	72	13	3	2	0	4,174
1968	3,062	1,167	70	13	3	2	0	4,317
1969	3,367	1,200	72	12	4	2	0	4,657
1970	3,349	1,292	79	13	0	0	0	4,733
1971	3,347	1,097	158	12	0	12	0	4,626
1972	2,956	1,656	184	6	0	0	0	4,802
1973	2,866	2,445	339	0	0	0	0	5,650
1974	2,754	2,901	391	0	0	0	0	6,046
1975	2,984	3,126	827	0	0	0	0	6,937
1976	3,868	3,057	1,043	0	0	0	0	7,968
1977	4,390	3,107	1,337	0	0	0	4	8,838
1978	4,005	3,640	1,558	0	0	0	50	9,253
1979	5,292	5,147	1,657	0	0	0	0	12,096
1980	5,096	6,319	1,821	0	0	0	0	13,236
1981	6,123	5,609	2,076	0	0	0	0	13,808
1982	8,335	6,329	2,248	0	0	0	0	16,912
1983	4,194	5,404	2,231	0	0	0	0	11,829
1984	5,293	4,825	2,141	0	0	0	0	12,259
1985	6,518	4,516	1,797	0	0	0	0	12,831
1986	6,505	5,404	2,360	0	0	0	0	14,269
1987	7,495	6,765	2,228	33	0	0	0	16,521
1988	7,703	7,801	2,625	35	0	0	0	18,164
1989	8,927	8,531	3,059	0	0	0	0	20,517
1990	8,810	10,315	2,887	0	0	0	0	22,012
1991	5,816	12,980	3,079	0	0	0	0	21,875
1992	3,386	15,049	2,580	0	0	0	0	21,015
1993	2,642	15,528	3,553	0	0	0	0	21,723
1994	4,523	16,330	3,569	0	0	0	0	24,422
1995	3,801	17,344	3,906	0	0	0	0	25,051
1996	5,985	16,872	4,214	0	0	0	0	27,071
1997	6,956	14,533	4,939	0	0	0	0	26,428
1998	7,206	13,675	5,719	0	0	0	0	26,600
1999	4,514	16,214	5,763	0	0	0	0	26,491
2000	4,615	16,399	5,906	0	0	0	0	26,920
2001	5,689	14,334	7,001	0	0	0	0	27,024
2002	6,007	11,692	7,600	0	0	0	0	25,299
Cumulative Production	417,501	340,091	95,500	4,272	821	70	2,901	861,156

Source: UEO coal company questionnaires

Figure 2.2 Coal Production in Utah by County, 1960-2002



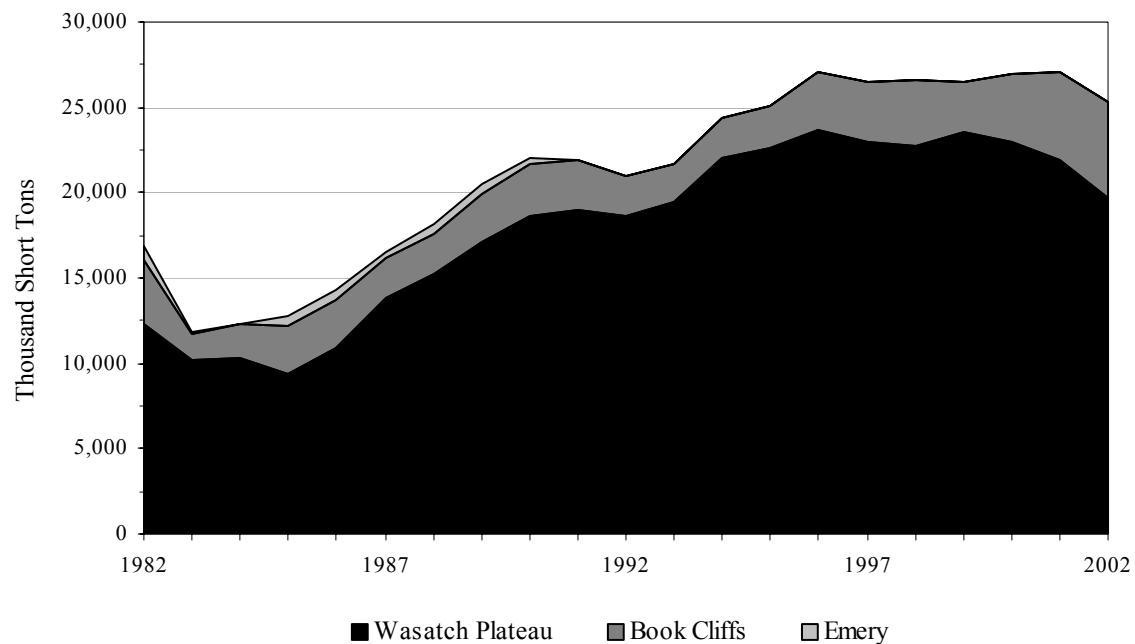
Source: UEO coal company questionnaires

Table 2.11 Coal Production in Utah by Coal Field, 1982-2002
 Thousand Short Tons

Year	Wasatch Plateau	Book Cliffs	Emery	Sego	Coalville	Others	Total
1870-1981	166,404	234,547	5,723	2,654	4,262	2,332	415,922
1982	12,342	3,718	852	0	0	0	16,912
1983	10,173	1,568	88	0	0	0	11,829
1984	10,266	1,993	0	0	0	0	12,259
1985	9,386	2,805	640	0	0	0	12,831
1986	10,906	2,860	503	0	0	0	14,269
1987	13,871	2,348	269	0	33	0	16,521
1988	15,218	2,363	548	0	35	0	18,164
1989	17,146	2,785	586	0	0	0	20,517
1990	18,591	3,085	336	0	0	0	22,012
1991	18,934	2,941	0	0	0	0	21,875
1992	18,631	2,384	0	0	0	0	21,015
1993	19,399	2,324	0	0	0	0	21,723
1994	22,079	2,343	0	0	0	0	24,422
1995	22,631	2,420	0	0	0	0	25,051
1996	23,616	3,455	0	0	0	0	27,071
1997	22,916	3,512	0	0	0	0	26,428
1998	22,708	3,892	0	0	0	0	26,600
1999	23,572	2,919	0	0	0	0	26,491
2000	22,967	3,953	0	0	0	0	26,920
2001	21,919	5,106	0	0	0	0	27,025
2002	19,654	5,619	26	0	0	0	25,299
Cumulative Production	543,329	298,940	9,571	2,654	4,330	2,332	861,156

Source: UEO coal company questionnaires

Figure 2.3 Coal Production in Utah by Coal Field, 1982-2002



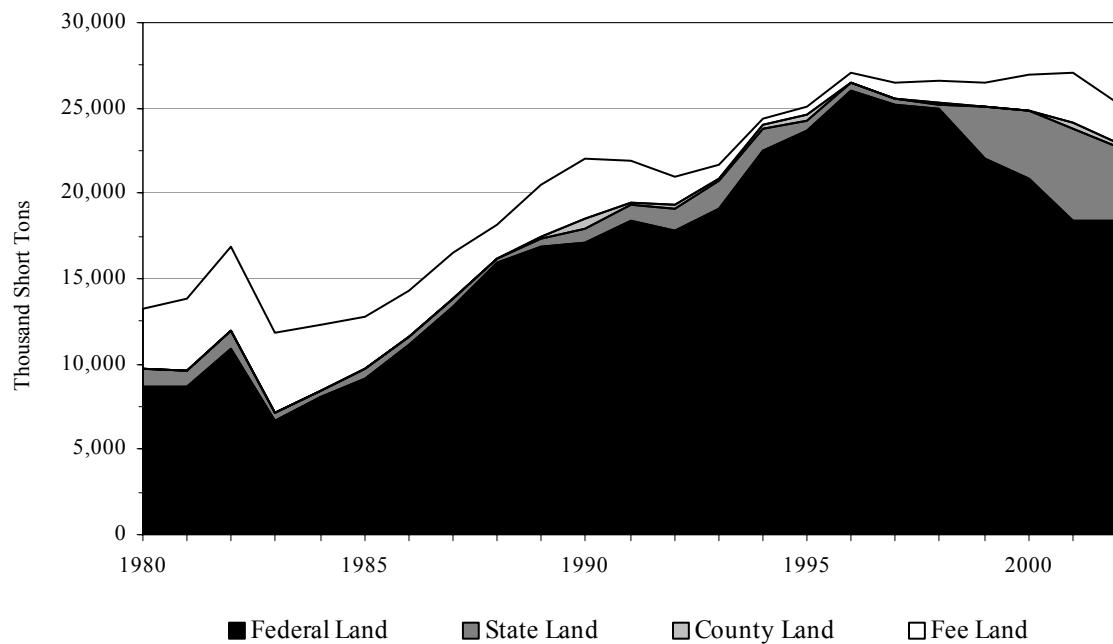
Source: UEO coal company questionnaires

Table 2.12 Coal Production in Utah by Landownership, 1980-2002
 Thousand Short Tons

Year	Federal Land	Percent of Total	State Land	Percent of Total	County Land	Percent of Total	Fee Land	Percent of Total	Total
1980	8,663	65.5	1,105	8.3	0	0.0	3,468	26.2	13,236
1981	8,719	63.1	929	6.7	0	0.0	4,160	30.1	13,808
1982	10,925	64.6	998	5.9	0	0.0	4,989	29.5	16,912
1983	6,725	56.9	419	3.5	0	0.0	4,685	39.6	11,829
1984	8,096	66.0	285	2.3	0	0.0	3,878	31.6	12,259
1985	9,178	71.5	510	4.0	0	0.0	3,143	24.5	12,831
1986	11,075	77.6	502	3.5	0	0.0	2,692	18.9	14,269
1987	13,343	80.8	488	3.0	0	0.0	2,690	16.3	16,521
1988	15,887	87.5	263	1.4	0	0.0	2,014	11.1	18,164
1989	16,931	82.5	375	1.8	153	0.7	3,058	14.9	20,517
1990	17,136	77.8	794	3.6	606	2.8	3,476	15.8	22,012
1991	18,425	84.2	942	4.3	144	0.7	2,364	10.8	21,875
1992	17,760	84.5	1,384	6.6	136	0.6	1,735	8.3	21,015
1993	19,099	87.9	1,682	7.7	116	0.5	826	3.8	21,723
1994	22,537	92.3	1,227	5.0	243	1.0	415	1.7	24,422
1995	23,730	94.7	571	2.3	289	1.2	461	1.8	25,051
1996	25,996	96.0	446	1.6	15	0.1	614	2.3	27,071
1997	25,161	95.2	339	1.3	0	0.0	928	3.5	26,428
1998	24,954	93.8	297	1.1	37	0.1	1,312	4.9	26,600
1999	21,982	83.0	3,071	11.6	65	0.2	1,373	5.2	26,491
2000	20,812	77.3	4,021	14.9	0	0.0	2,087	7.8	26,920
2001	18,369	68.0	5,386	19.9	331	1.2	2,939	10.9	27,025
2002	18,365	72.6	4,353	17.2	278	1.1	2,303	9.1	25,299

Source: UEO coal company questionnaires

Figure 2.4 Coal Production in Utah by Landownership, 1980-2002



Source: UEO coal company questionnaires

Table 2.13 Distribution of Utah Coal by Principal State, 1970-2002

Thousand Short Tons

Year	AL	AZ	CA	CO	CT	FL	HI	ID	IL	IN	IA	KS	LA	MA	MD	MI	MN	MS	MO	MT	NE	NV	NJ	NY	OH
1970	--	a	1,222	--	--	--	--	253	--	--	--	--	--	--	--	--	--	--	b	--	677	--	--	--	
1971	--	a	908	--	--	--	--	449	--	--	--	--	--	--	--	--	--	--	b	--	796	--	--	--	
1972	--	a	910	11	--	--	--	381	--	--	--	--	--	--	--	--	--	--	b	--	1,157	--	--	--	
1973	--	a	1,224	--	--	--	--	321	--	--	--	--	--	--	--	--	--	--	b	--	745	--	--	--	
1974	--	--	965	113	--	--	--	233	85	29	--	--	--	--	--	--	--	--	6	--	641	--	--	--	
1975	--	191	1,021	3	--	31	--	221	--	131	--	--	--	--	--	--	--	--	9	--	678	--	--	--	
1976	--	268	1,271	--	--	--	--	159	86	20	--	--	--	--	--	--	--	--	2	--	960	--	--	--	
1977	--	700	1,605	--	--	--	--	120	123	177	--	--	--	--	--	--	--	159	--	--	908	--	--	--	
1978	--	55	1,364	--	--	--	--	49	138	1,132	--	--	--	--	--	--	--	9	458	3	--	1,083	--	--	--
1979	--	125	1,398	7	--	--	--	86	183	1,290	--	--	--	--	--	--	--	269	--	44	--	997	--	--	--
1980	--	546	1,780	1	--	--	--	89	--	1,149	--	--	--	--	--	--	--	405	--	41	--	1,060	--	--	--
1981	--	108	1,929	4	--	--	--	75	--	490	--	--	--	--	--	--	--	584	--	65	--	1,396	--	--	--
1982	--	99	1,748	25	--	--	--	61	--	840	--	--	--	--	--	--	--	787	--	61	--	1,960	--	--	--
1983	--	364	802	8	--	--	--	83	--	350	--	--	--	--	--	--	--	684	--	37	--	2,162	--	--	--
1984	--	553	1,192	10	--	--	--	92	--	510	--	--	--	--	--	--	--	608	--	38	--	2,244	--	--	--
1985	--	63	1,550	5	--	--	--	60	--	--	--	--	--	--	--	--	--	425	--	14	--	3,429	--	--	--
1986	--	72	1,515	30	--	--	--	62	--	--	--	--	--	--	--	--	--	226	--	*	--	2,849	--	--	--
1987	--	194	1,834	185	--	--	--	49	78	*	--	--	--	--	--	--	--	*	--	5	--	2,634	--	--	--
1988	--	77	1,938	41	--	--	--	104	--	--	--	--	--	--	--	--	--	--	29	--	2,232	--	--	--	
1989	--	93	1,938	16	--	--	--	74	--	--	--	--	--	--	--	--	--	48	34	--	2,488	--	--	--	
1990	--	93	2,466	66	--	--	--	80	--	--	*	--	--	--	--	--	--	--	38	--	2,619	--	--	--	
1991	--	111	2,556	19	--	--	--	89	10	--	*	--	--	--	--	--	--	--	34	--	2,711	--	--	--	
1992	--	101	2,777	34	--	32	--	61	233	--	--	--	--	--	--	--	--	79	42	*	1,979	--	--	--	
1993	--	89	2,575	14	--	155	--	95	207	204	--	--	--	--	--	--	--	382	42	*	1,781	--	--	*	
1994	--	86	3,074	4	--	--	--	59	369	178	--	2	--	--	--	66	--	--	412	29	--	2,027	--	--	--
1995	--	80	2,838	6	17	--	--	141	1,776	--	--	*	--	--	--	76	1	--	393	9	--	2,150	--	--	--
1996	--	69	2,240	2	--	--	--	65	2,473	--	--	--	--	--	--	44	--	--	330	--	--	2,265	--	--	--
1997	--	78	2,718	3	--	--	21	39	1,446	--	--	--	90	--	--	--	--	140	27	--	2,626	--	--	--	
1998	--	4,711	3	--	--	34	121	2,266	--	--	*	--	--	--	--	--	--	10	3	--	3,431	--	--	--	
1999	--	5,130	3	--	--	--	66	1,507	--	--	*	--	--	--	--	--	--	99	4	3	3,857	--	--	--	
2000	--	28	5,492	3	--	--	--	233	772	20	--	--	--	--	13	--	--	327	--	21	3,483	22	--	--	
2001	--	31	7,322	3	--	--	--	235	118	284	24	*	78	--	--	25	40	--	565	*	--	4,045	30	20	29
2002	1	19	6,425	1	--	--	--	311	345	281	--	21	4	--	--	263	1	--	60	5	11	3,483	--	--	--

Table 2.13 Cont.

Year	OR	PA	TN	TX	UT	VA	WA	WI	WV	WY	Exports	Other	Total
1970	c	--	d	--	1,608	--	310	d	--	--	260	221	6,521
1971	c	--	d	--	1,742	--	312	d	--	--	--	462	6,640
1972	c	--	d	--	2,128	--	196	d	--	1	--	253	7,009
1973	c	--	d	--	2,871	--	142	d	--	--	--	237	7,513
1974	55	--	d	--	2,973	--	245	d	--	1	138	614	8,072
1975	41	--	d	--	3,093	--	379	d	--	--	36	1,025	8,834
1976	32	--	d	--	3,070	--	415	d	--	--	--	1,138	9,397
1977	11	--	d	--	3,589	--	451	d	--	41	--	930	10,791
1978	61	--	d	--	4,042	--	476	d	--	43	--	180	11,071
1979	15	--	d	--	5,466	--	437	d	--	97	--	339	12,732
1980	9	--	d	--	6,138	--	327	d	--	--	776	693	14,994
1981	1	--	d	--	5,786	--	263	d	--	87	3,472	367	16,608
1982	3	--	d	--	7,176	--	332	d	--	26	2,177	102	17,379
1983	2	--	d	--	6,024	--	288	d	--	--	1,346	38	14,171
1984	29	--	d	--	5,574	--	305	d	--	3	849	67	14,058
1985	3	--	d	--	7,835	--	315	d	--	1	625	36	16,346
1986	1	--	d	--	7,902	--	57	d	--	*	551	-22	15,229
1987	14	--	d	--	11,327	--	--	d	--	21	555	93	18,976
1988	2	--	d	--	12,187	--	122	d	--	37	1,044	391	20,192
1989	2	--	d	--	13,006	--	103	d	--	92	2,175	220	22,278
1990	2	--	--	--	14,107	--	139	--	--	78	1,751	68	23,497
1991	2	--	--	--	13,605	--	150	--	--	62	2,086	9	23,435
1992	113	--	--	--	13,035	--	253	--	--	37	2,260	16	23,044
1993	123	--	--	--	13,418	--	145	10	4	18	2,959	21	24,235
1994	127	68	218	33	13,586	--	115	43	--	2	2,698	29	25,219
1995	2	20	1,095	4	12,755	--	126	81	--	22	3,930	--	27,517
1996	*	--	1,421	--	13,680	--	125	133	--	*	5,305	7	30,155
1997	7	--	1,521	--	13,936	--	119	72	--	--	3,414	14	28,268
1998	1	*	996	--	12,531	--	92	--	--	--	2,535	30	28,762
1999	431	--	1,142	105	10,979	--	67	--	--	*	2,313	9	27,714
2000	234	58	1,305	278	12,329	118	103	34	--	*	3,073	9	29,955
2001	356	--	2,128	53	8,842	52	104	378	--	*	2,144	--	28,907
2002	95	--	1,072	--	10,080	--	81	663	--	*	1,142	28	26,394

Note: a - Arizona and Nevada data combined for 1970-1973; b - Montana and Idaho data combined for 1970-1973; c - Oregon and Washington data combined for 1970-1973; d - Tennessee and Wisconsin included in "Other" from 1970-1989.

Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1989
EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002

*Amounts less than 500 tons

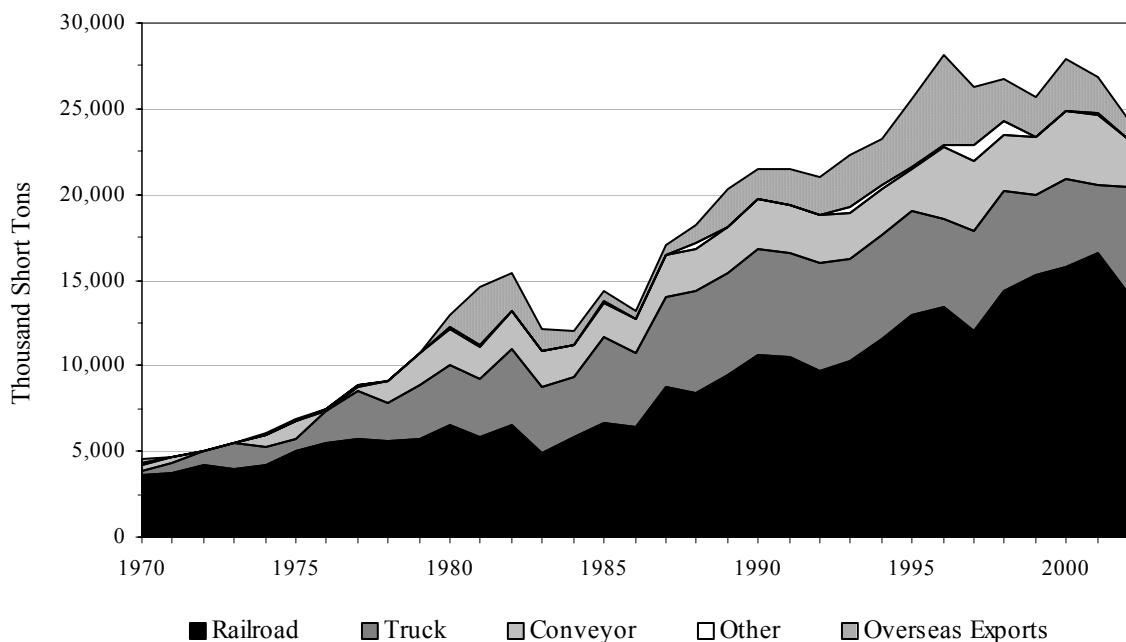
Table 2.14 Distribution of Utah Coal by Method of Transportation, 1970-2002
Thousand Short Tons

Year	Railroad	Truck	Conveyor	Other*	Overseas Exports	Total
1970	3,665	187	394	45	260	4,551
1971	3,691	636	330	12	0	4,669
1972	4,148	863	0	26	0	5,037
1973	3,952	1,562	0	26	0	5,540
1974	4,238	982	714	26	138	6,098
1975	5,020	742	1,061	0	36	6,859
1976	5,470	1,926	0	25	0	7,421
1977	5,679	2,830	297	8	0	8,814
1978	5,577	2,221	1,274	21	0	9,093
1979	5,759	3,096	1,860	38	0	10,753
1980	6,564	3,424	2,099	151	776	13,014
1981	5,848	3,332	1,898	77	3,472	14,627
1982	6,560	4,366	2,294	0	2,177	15,397
1983	4,918	3,871	2,022	31	1,346	12,188
1984	5,862	3,527	1,777	59	849	12,074
1985	6,641	5,056	2,004	35	625	14,361
1986	6,447	4,263	1,982	0	551	13,243
1987	8,812	5,166	2,431	25	555	16,989
1988	8,400	5,937	2,487	336	1,044	18,204
1989	9,463	5,902	2,749	0	2,175	20,289
1990	10,573	6,276	2,834	73	1,751	21,507
1991	10,503	6,130	2,713	12	2,086	21,444
1992	9,725	6,269	2,778	20	2,260	21,052
1993	10,285	5,923	2,692	383	2,959	22,242
1994	11,613	6,021	2,716	177	2,698	23,225
1995	12,917	6,064	2,542	69	3,930	25,522
1996	13,409	5,104	4,291	50	5,305	28,159
1997	12,053	5,821	4,078	905	3,414	26,271
1998	14,328	5,817	3,367	717	2,535	26,764
1999	15,314	4,685	3,393	10	2,313	25,715
2000	15,776	5,103	3,995	8	3,073	27,955
2001	16,524	4,052	4,012	174	2,144	26,906
2002	14,221	6,249	2,739	41	1,142	24,392

Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1989
EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1993 data supplied by EIA contact)

*River, Great Lakes, tidewater, unknown

Figure 2.5 **Distribution of Utah Coal by Method of Transportation, 1970-2002**



Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1989
EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1993 data supplied by EIA contact)

Table 2.15a Distribution of Utah Coal by Destination and Method of Transportation, 2002
 Thousand Short Tons

State	Railroad	Truck	Conveyor	River / Great Lakes	Total
Alabama	--	1	--	--	1
Arizona	19	--	--	--	19
California	6,424	1	--	--	6,425
Colorado	--	1	--	--	1
Idaho	149	162	--	--	311
Illinois	345	--	--	--	345
Indiana	281	--	--	--	281
Kansas	21	*	--	--	21
Louisiana	--	--	--	4	4
Michigan	--	253	--	10	263
Minnesota	1	--	--	--	1
Missouri	60	--	--	--	60
Montana	4	1	--	--	5
Nebraska	11	--	--	--	11
Nevada	3,211	272	--	--	3,483
Oregon	95	*	--	--	95
Tennessee	1,072	--	--	--	1,072
Utah	1,785	5,556	2,739	--	10,080
Washington	80	1	--	--	81
Wisconsin	663	--	--	--	663
Wyoming	--	*	--	--	*
Unknown State	--	--	--	--	28
Domestic	14,221	6,248	2,739	14	23,252
Foreign	--	--	--	--	1,142
Total	14,221	6,248	2,739	14	24,392

Source: EIA, *Coal Distribution*, 2002

*Amounts less than 500 tons

Table 2.15b Distribution of Utah Coal by Destination and Method of Transportation, 2001
 Thousand Short Tons

State	Railroad	Truck	Conveyor	River	Total
Arizona	31	--	--	--	31
California	7,320	2	--	--	7,322
Colorado	--	3	--	--	3
Idaho	159	76	--	--	235
Illinois	118	--	--	--	118
Indiana	284	--	--	--	284
Iowa	24	--	--	--	24
Kansas	--	*	--	--	*
Louisiana	--	--	--	78	78
Michigan	--	--	--	25	25
Minnesota	--	--	--	40	40
Missouri	555	10	--	--	565
Nevada	4,045	*	--	--	4,045
New Jersey	30	--	--	--	30
New York	20	--	--	--	20
Ohio	--	20	--	9	29
Oregon	356	*	--	--	356
Tennessee	2,106	--	--	22	2,128
Texas	53	--	--	--	53
Utah	890	3,940	4,012	--	8,842
Virginia	52	--	--	--	52
Washington	103	1	--	--	104
Wisconsin	378	--	--	--	378
Domestic	16,524	4,052	4,012	174	24,761
Foreign	--	--	--	--	2,144
Total	16,524	4,052	4,012	174	26,906

Source: EIA, *Coal Distribution, 2001*

*Amounts less than 500 tons

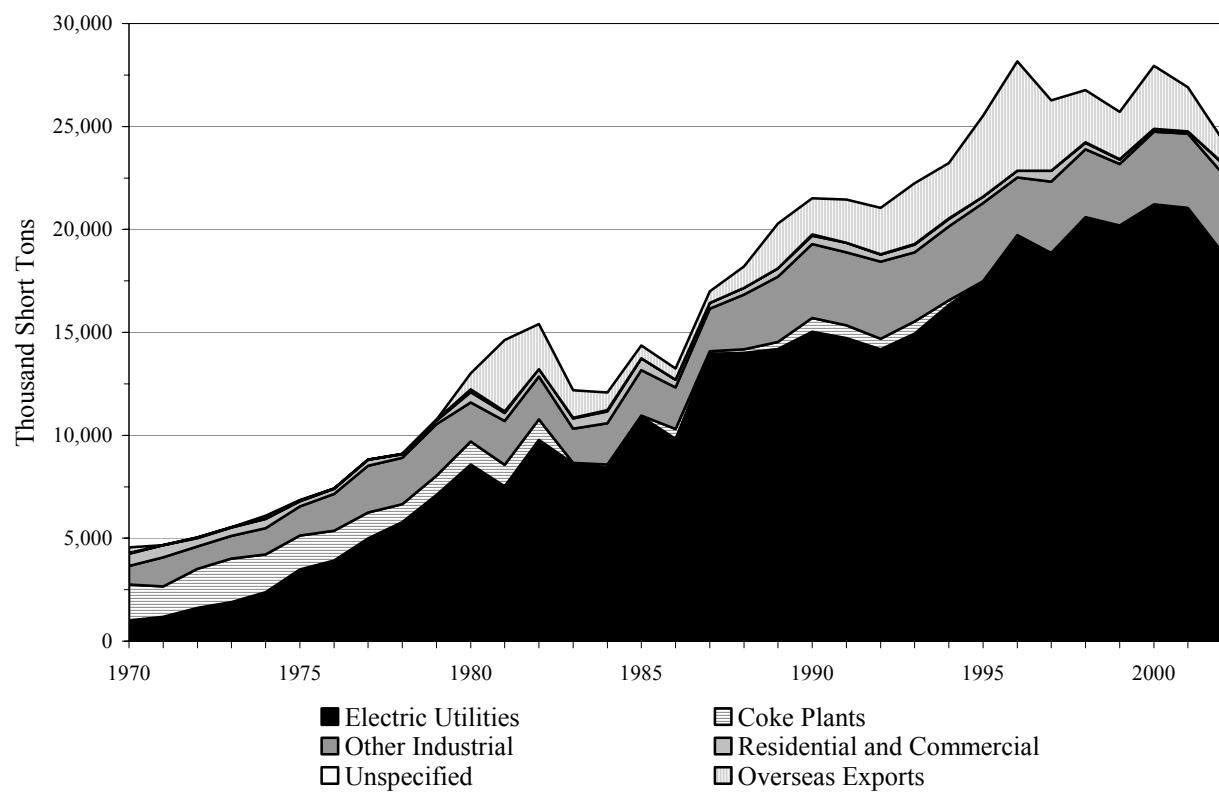
Table 2.16 Distribution of Utah Coal by End Use, 1970-2002

Thousand Short Tons

Year	Electric Utilities	Coke Plants	Other Industrial	Residential and Commercial	Unspecified	Overseas Exports	Total
1970	1,005	1,745	896	600	45	260	4,551
1971	1,184	1,475	1,416	582	12	0	4,669
1972	1,611	1,901	1,096	403	26	0	5,037
1973	1,903	2,107	1,106	398	26	0	5,540
1974	2,374	1,845	1,272	443	26	138	6,098
1975	3,476	1,654	1,421	243	29	36	6,859
1976	3,915	1,453	1,785	243	25	0	7,421
1977	4,992	1,253	2,266	295	8	0	8,814
1978	5,788	869	2,252	163	21	0	9,093
1979	7,098	943	2,492	182	38	0	10,753
1980	8,581	1,116	1,896	498	147	776	13,014
1981	7,517	1,046	2,139	377	76	3,472	14,627
1982	9,777	996	2,077	410	-40	2,177	15,397
1983	8,623	32	1,673	483	31	1,346	12,188
1984	8,418	162	2,007	569	69	849	12,074
1985	10,915	39	2,218	564	0	625	14,361
1986	9,820	484	2,015	373	0	551	13,243
1987	13,954	131	2,062	287	0	555	16,989
1988	14,010	166	2,665	319	0	1,044	18,204
1989	14,185	355	3,166	408	0	2,175	20,289
1990	15,026	670	3,594	397	69	1,751	21,507
1991	14,726	615	3,548	462	7	2,086	21,444
1992	14,177	507	3,750	342	16	2,260	21,052
1993	14,941	593	3,354	373	22	2,959	22,242
1994	16,339	211	3,601	348	28	2,698	23,225
1995	17,488	0	3,793	309	2	3,930	25,522
1996	19,723	0	2,808	317	6	5,305	28,159
1997	18,854	7	3,466	517	13	3,414	26,271
1998	20,594	3	3,292	311	29	2,535	26,764
1999	20,185	0	2,992	215	10	2,313	25,715
2000	21,214	0	3,539	121	8	3,073	27,955
2001	20,982	57	3,621	100	2	2,144	26,906
2002	18,909	0	3,825	490	26	1,142	24,392

Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976EIA, *Coal Distribution* for 1977-1989EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1997 data supplied by EIA contact)

Figure 2.6 **Distribution of Utah Coal by End Use, 1970-2002**



Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1989
EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1997 data supplied by EIA contact)

Table 2.17a

Distribution of Utah Coal by Destination and End Use, 2002

Thousand Short Tons

State	Electric Utilities	Coke Plants	Other Industrial	Residential and Commercial	Total
Alabama	1	--	--	--	1
Arizona	--	--	19	--	19
California	4,452	--	1,974	--	6,426
Colorado	--	--	*	1	1
Idaho	--	--	297	14	311
Illinois	345	--	--	--	345
Indiana	281	--	--	--	281
Kansas	--	--	21	--	21
Louisiana	--	--	4	--	4
Michigan	10	--	--	253	263
Minnesota	--	--	1	--	1
Missouri	60	--	--	--	60
Montana	--	--	5	*	5
Nebraska	11	--	--	--	11
Nevada	3,170	--	314	--	3,484
Oregon	--	--	95	--	95
Tennessee	1,072	--	--	--	1,072
Utah	8,845	--	1,037	198	10,080
Washington	--	--	58	23	81
Wisconsin	663	--	--	--	663
Wyoming	--	--	--	*	*
Unknown State	--	--	--	--	28
Total (excluding exports)	18,910	--	3,825	489	23,252

Source: EIA, *Coal Distribution, 2002*

*Amounts less than 500 tons

Table 2.17b

Distribution of Utah Coal by Destination and End Use, 2001

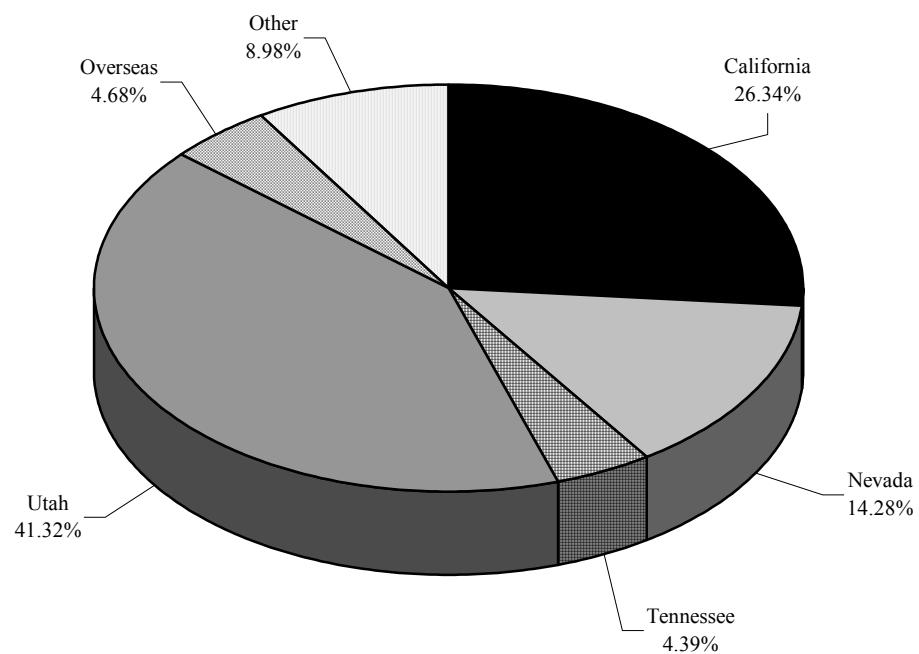
Thousand Short Tons

State	Electric Utilities	Coke Plants	Other Industrial	Residential and Commercial	Total
Arizona	--	--	31	--	31
California	5,532	--	1,790	*	7,322
Colorado	--	--	--	3	3
Idaho	--	--	220	15	235
Illinois	118	--	--	--	118
Indiana	284	--	--	--	284
Iowa	24	--	--	--	24
Kansas	--	--	--	*	*
Louisiana	--	--	78	--	78
Michigan	25	--	--	--	25
Minnesota	--	--	40	--	40
Missouri	565	--	--	--	565
Montana	--	--	--	*	*
Nevada	3,761	--	284	*	4,045
New Jersey	30	--	--	--	30
New York	20	--	--	--	20
Ohio	9	--	20	--	29
Oregon	291	--	65	*	356
Tennessee	2,106	--	22	--	2,128
Texas	53	--	--	--	53
Utah	7,789	57	939	60	8,845
Virginia	--	--	52	--	52
Washington	--	--	82	22	104
Wisconsin	374	--	4	--	378
Wyoming	--	--	--	*	*
Total (excluding exports)	20,982	57	3,621	100	24,760

Source: EIA, *Coal Distribution, 2001*

*Amounts less than 500 tons

Figure 2.7 Distribution of Utah Coal by Destination, 2002



Source: EIA, *Coal Distribution, 2001*

Table 2.18 **Coal Imported into Utah by Source State and End Use, 1980-2002**
 Thousand Short Tons

Year	Colorado				Pennsylvania				New Mexico			
	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial
1980	--	1,146	2	--	*	--	*	--	--	--	--	--
1981	8	1,030	24	--	--	--	*	*	--	--	--	--
1982	18	695	15	--	--	--	*	--	--	--	--	--
1983	--	854	19	--	--	--	*	*	--	--	--	--
1984	224	1,229	7	1	--	--	*	--	--	--	--	--
1985	193	1,289	9	--	--	--	*	--	--	--	--	--
1986	659	383	14	--	--	--	*	*	--	--	--	--
1987	1,081	162	45	--	--	--	*	*	--	--	--	--
1988	1,018	814	5	--	--	--	*	*	--	--	--	6
1989	1,361	867	6	--	--	--	*	--	3	--	--	4
1990	1,449	623	5	--	--	26	*	--	--	--	--	--
1991	1,129	171	--	--	60	205	*	*	--	--	--	--
1992	1,518	86	--	--	--	290	--	--	--	--	--	--
1993	1,501	82	15	--	--	240	*	--	--	--	--	--
1994	1,514	--	199	--	--	183	*	*	--	--	--	--
1995	779	128	207	--	--	214	*	*	--	--	--	--
1996	886	318	--	--	--	230	*	--	--	--	--	--
1997	1,679	433	--	--	--	199	3	--	--	--	--	--
1998	1,797	441	--	--	--	153	*	--	--	--	--	--
1999	1,360	250	--	--	--	77	5	--	--	--	--	--
2000	1,531	319	--	--	--	20	9	*	--	--	--	--
2001	2,078	99	--	--	--	--	12	*	--	--	--	--
2002	2,174	--	--	--	--	--	--	*	--	--	--	--

Table 2.18 Cont.

Year	Virginia				West Virginia				Wyoming				Total
	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial	Electric Generation	Coke Plants	Other Industrial	Residential and Commercial	
1980	--	--	--	--	--	--	--	--	--	--	65	1	1,214
1981	--	--	--	--	--	--	--	--	--	--	74	*	1,136
1982	--	--	--	--	--	--	--	--	--	--	70	*	798
1983	--	--	--	--	--	--	--	--	--	--	64	*	937
1984	--	--	--	--	--	--	--	--	--	--	78	--	1,539
1985	--	--	--	--	--	--	--	--	--	--	89	--	1,580
1986	--	--	--	--	--	--	--	--	--	--	89	--	1,145
1987	--	--	--	--	--	--	--	--	--	--	70	--	1,358
1988	--	--	25	--	--	213	54	--	--	--	56	--	2,191
1989	--	--	--	--	--	53	--	--	--	--	50	--	2,344
1990	--	--	--	--	--	--	14	--	--	--	2	2	2,121
1991	--	198	--	--	--	35	--	--	214	--	2	*	2,014
1992	24	168	--	--	--	--	--	--	586	--	--	*	2,672
1993	--	9	94	--	--	135	--	--	--	--	--	--	2,076
1994	--	320	--	--	--	211	--	--	--	--	--	--	2,427
1995	--	313	--	--	--	206	--	--	--	--	--	*	1,847
1996	--	332	--	--	--	18	--	--	1	--	--	--	1,785
1997	--	219	79	*	--	167	61	--	--	--	--	*	2,840
1998	--	27	--	--	--	115	10	--	--	--	--	*	2,543
1999	--	58	--	--	--	141	32	--	15	--	--	*	1,938
2000	--	119	--	--	--	252	25	--	260	--	--	*	2,535
2001	--	262	--	--	--	91	12	--	508	--	--	*	3,062
2002	--	--	--	--	--	--	--	--	77	--	--	--	2,251

Source: EIA, *Coal Distribution for 1980-1990*EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1997 data supplied by EIA contact)

*Amounts less than 500 tons

Table 2.19

Distribution of Coal in Utah by End Use (imports plus in-state distribution), 1960-2002

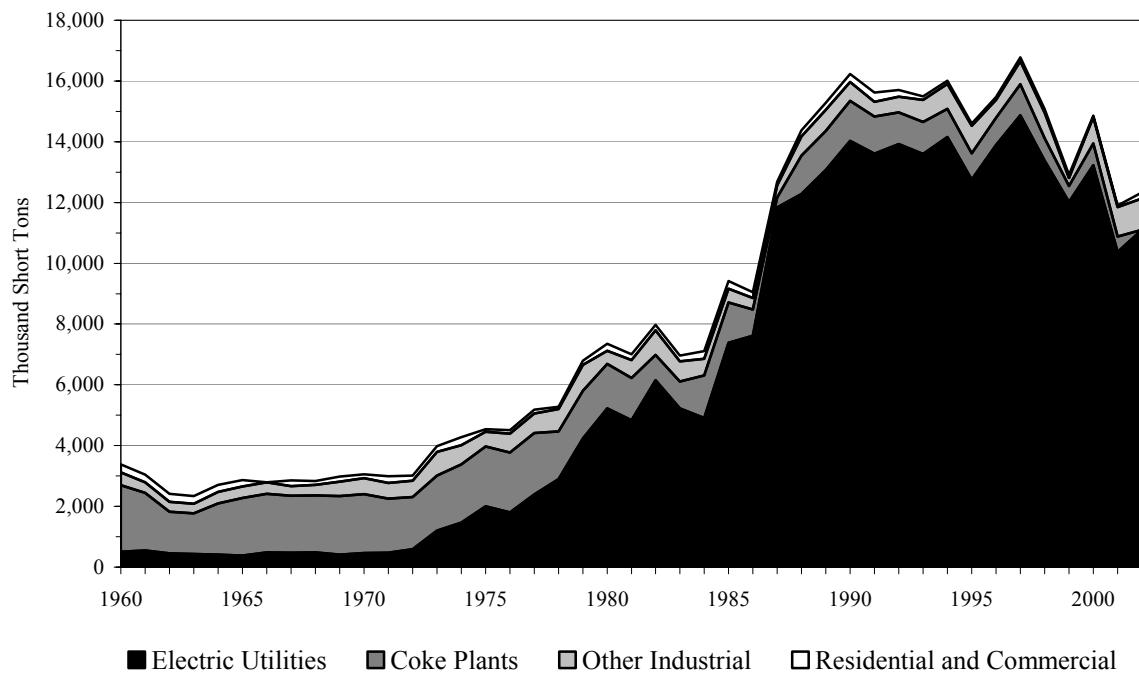
Thousand Short Tons

Year	Electric Utilities	Coke Plants	Other Industrial	Residential and Commercial	Total
1960	505	2,196	420	257	3,378
1961	552	1,887	355	251	3,045
1962	455	1,365	324	273	2,417
1963	436	1,331	323	244	2,334
1964	410	1,690	374	232	2,706
1965	377	1,897	385	209	2,868
1966	486	1,931	371	0	2,788
1967	479	1,865	316	193	2,853
1968	487	1,877	338	134	2,836
1969	409	1,929	474	166	2,978
1970	463	1,937	526	129	3,055
1971	472	1,787	506	228	2,993
1972	592	1,714	543	168	3,017
1973	1,202	1,814	780	187	3,983
1974	1,467	1,911	638	263	4,279
1975	1,996	1,971	489	87	4,543
1976	1,805	1,968	618	121	4,512
1977	2,389	2,020	648	122	5,179
1978	2,896	1,575	731	71	5,273
1979	4,239	1,568	845	145	6,797
1980	5,224	1,464	427	237	7,352
1981	4,837	1,383	591	197	7,008
1982	6,153	831	812	177	7,973
1983	5,220	886	665	191	6,962
1984	4,912	1,392	551	259	7,114
1985	7,385	1,328	451	252	9,416
1986	7,614	868	374	191	9,047
1987	11,837	330	393	124	12,684
1988	12,279	1,270	632	196	14,377
1989	13,067	1,286	695	231	15,279
1990	14,029	1,319	614	267	16,229
1991	13,603	1,224	487	305	15,619
1992	13,920	1,051	512	223	15,706
1993	13,593	1,058	722	121	15,494
1994	14,155	926	828	105	16,014
1995	12,756	861	908	77	14,602
1996	13,890	899	584	94	15,467
1997	14,869	1,024	758	123	16,774
1998	13,373	740	848	113	15,074
1999	12,020	527	257	114	12,918
2000	13,231	709	864	59	14,863
2001	10,375	509	960	60	11,904
2002	11,096	0	1,037	198	12,331

Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1990

EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1997 data supplied by EIA contact)

Figure 2.8 **Distribution of Coal in Utah by End Use (imports plus in-state distribution), 1960-2002**



Source: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976
EIA, *Coal Distribution* for 1977-1989
EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002 (1991-1997 data supplied by EIA contact)

Table 2.20 Coal Supply and Distribution in Utah, 1970-2002
Thousand Short Tons

Year	Utah Coal Supply		Distribution of Utah Coal ²			
	Production ¹	Imports ²	Utah	Exports Domestic	Exports Overseas	Total
1970	4,733	1,402	1,608	2,683	260	4,551
1971	4,626	1,251	1,742	2,927	0	4,669
1972	4,802	889	2,128	2,909	0	5,037
1973	5,650	1,086	2,871	2,669	0	5,540
1974	6,046	1,279	2,973	2,989	138	6,100
1975	6,937	1,421	3,093	3,730	36	6,859
1976	7,968	1,417	3,070	4,351	0	7,421
1977	8,838	1,572	3,589	5,225	0	8,814
1978	9,253	1,196	4,042	5,051	0	9,093
1979	12,096	1,331	5,466	5,287	0	10,753
1980	13,236	1,214	6,138	6,100	776	13,014
1981	13,808	1,136	5,786	5,369	3,472	14,627
1982	16,912	798	7,176	6,044	2,177	15,397
1983	11,829	937	6,024	4,818	1,346	12,188
1984	12,259	1,539	5,574	5,651	849	12,074
1985	12,831	1,580	7,835	5,901	625	14,361
1986	14,269	1,145	7,902	4,790	551	13,243
1987	16,521	1,358	11,327	5,107	555	16,989
1988	18,164	2,191	12,187	4,973	1,044	18,204
1989	20,517	2,344	13,006	5,108	2,175	20,289
1990	22,012	2,121	14,107	5,649	1,751	21,507
1991	21,875	2,014	13,605	5,744	2,086	21,435
1992	21,015	2,672	13,035	5,741	2,260	21,036
1993	21,723	2,076	13,418	5,844	2,959	22,221
1994	24,422	2,427	13,586	6,912	2,698	23,196
1995	25,051	1,847	12,755	8,837	3,930	25,522
1996	27,071	1,785	9,389	9,167	5,305	23,861
1997	26,428	2,840	13,936	8,898	3,436	26,270
1998	26,600	2,543	12,531	11,698	2,535	26,764
1999	26,491	1,938	10,979	12,424	2,313	25,716
2000	26,920	2,535	12,329	12,553	3,073	27,955
2001	27,024	3,062	8,842	15,920	2,144	26,906
2002	25,299	2,251	10,080	13,170	1,142	24,392

Source: ¹UEO coal company questionnaires

²U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys - Bituminous Coal and Lignite Distribution* for 1970-1976

²EIA, *Coal Distribution* for 1977-1990

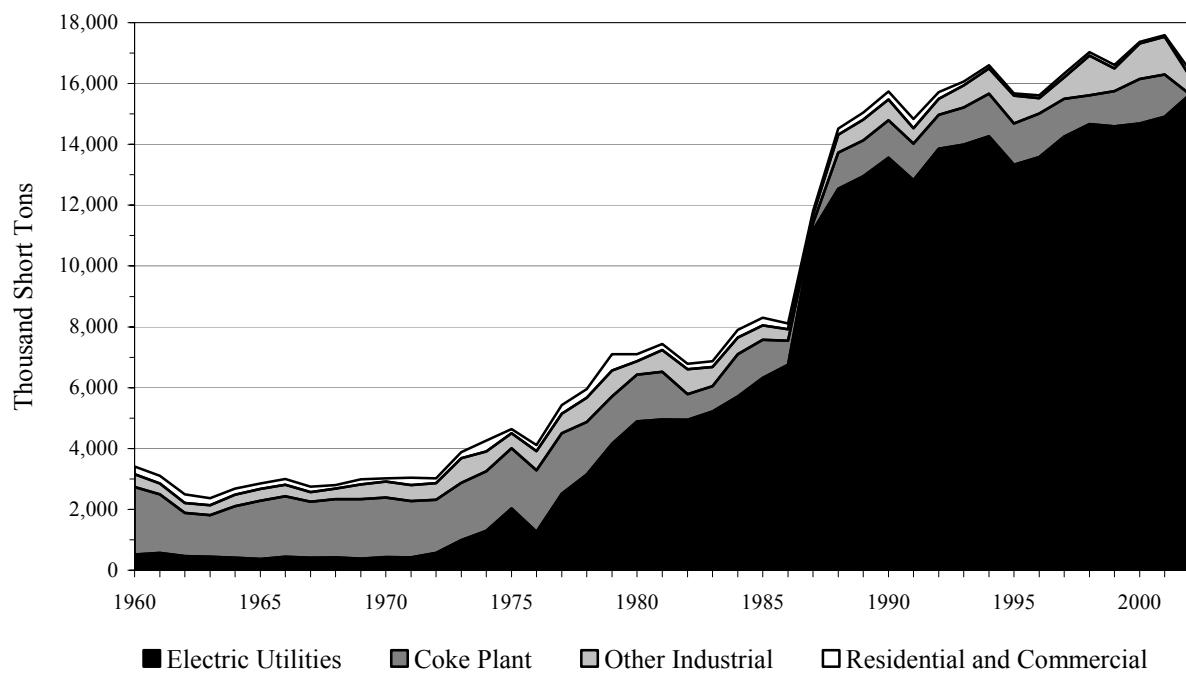
²EIA, *Coal Industrial Annual - Annual Coal Report*, 1990-2002

Table 2.21 Consumption of Coal in Utah by End Use, 1960-2002
 Thousand Short Tons

Year	Electric Utilities	Coke Plant	Other Industrial	Residential and Commercial	Total
1960	515	2,216	424	249	3,404
1961	563	1,930	363	244	3,100
1962	462	1,416	336	275	2,489
1963	447	1,362	331	228	2,368
1964	411	1,693	375	204	2,683
1965	363	1,917	389	181	2,850
1966	440	1,988	382	186	2,996
1967	410	1,845	313	181	2,749
1968	417	1,917	345	119	2,798
1969	375	1,964	483	161	2,983
1970	435	1,948	529	109	3,021
1971	417	1,859	527	240	3,043
1972	571	1,739	551	161	3,022
1973	984	1,889	812	199	3,884
1974	1,296	1,957	654	354	4,261
1975	2,026	1,985	493	131	4,635
1976	1,267	2,011	631	208	4,117
1977	2,511	1,995	640	282	5,428
1978	3,148	1,725	800	281	5,954
1979	4,151	1,566	844	542	7,103
1980	4,895	1,528	446	237	7,106
1981	4,956	1,567	714	196	7,433
1982	4,947	841	822	177	6,787
1983	5,223	829	629	191	6,872
1984	5,712	1,386	548	259	7,905
1985	6,325	1,254	472	252	8,303
1986	6,756	785	380	191	8,112
1987	11,175	231	276	124	11,806
1988	12,544	1,184	589	196	14,513
1989	12,949	1,179	686	231	15,045
1990	13,563	1,231	676	267	15,737
1991	12,829	1,192	508	305	14,834
1992	13,857	1,114	525	223	15,719
1993	13,995	1,220	727	121	16,063
1994	14,269	1,394	835	105	16,603
1995	13,325	1,358	915	77	15,675
1996	13,584	1,425	512	94	15,615
1997	14,252	1,240	709	123	16,324
1998	14,664	949	1,304	113	17,030
1999	14,590	1,162	745	114	16,611
2000	14,688	1,461	1,166	59	17,374
2001	14,906	1,391	1,235	60	17,592
2002	15,644	0	592	198	16,434

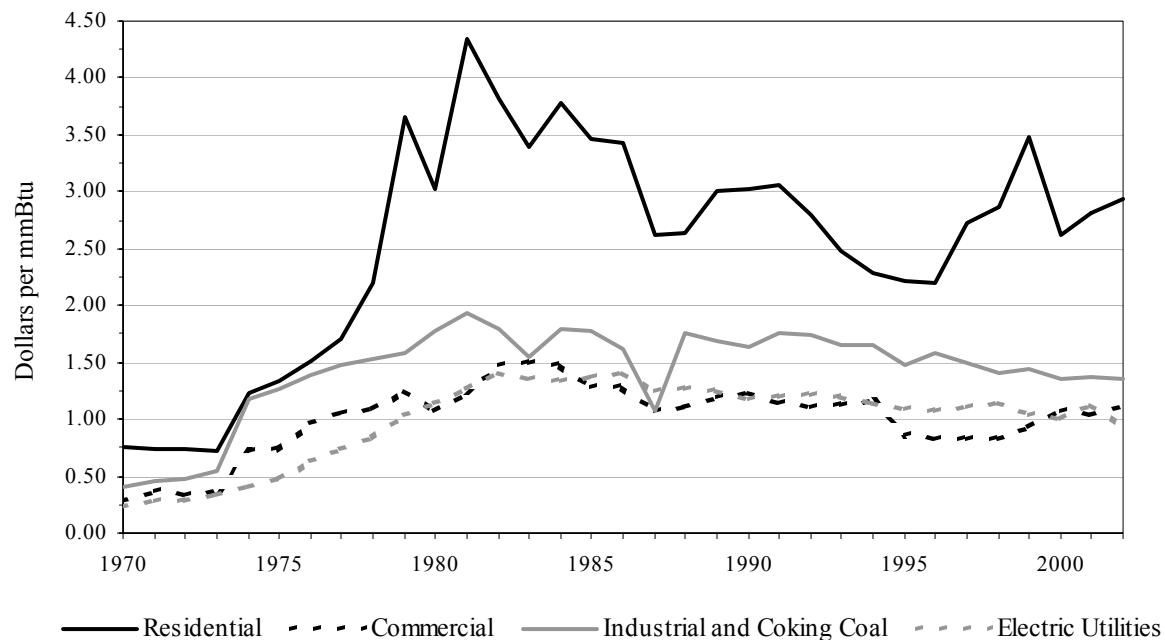
Source: EIA, *State Energy Report*, 1960-2000
 EIA, *Annual Coal Report*, 2002 for 2001-2002 data

Figure 2.9 Consumption of Coal in Utah by End Use, 1960-2002



Source: EIA, *State Energy Report*, 1960-2000
EIA, *Annual Coal Report*, 2002 for 2001-2002 data

Figure 2.10 End-Use Price of Coal Consumed in Utah, 1970-2002



Source: EIA, *State Energy Report*, 1960-2000
EIA, *Annual Coal Report*, 2002 for 2001-2002 Electric Utilities data

CRUDE OIL AND PETROLEUM PRODUCTS

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Table 3.1 U.S. Proved Reserves of Crude Oil and Natural Gas Liquids by State, December 31, 2002
 Million Barrels

Rank	State	Crude Oil	Natural Gas Liquids	Total
1	Texas	5,015	2,711	7,726
2	Alaska	4,678	405	5,083
3	Federal Offshore Gulf of Mexico (Louisiana)	4,088	783	4,871
4	California	3,633	95	3,728
5	New Mexico	710	838	1,548
6	Oklahoma	598	695	1,293
7	Wyoming	524	685	1,209
8	Louisiana	501	323	824
9	Colorado	214	396	610
10	Federal Offshore Pacific (California)	565	8	573
11	Federal Offshore Gulf of Mexico (Texas)	356	182	538
12	Kansas	237	263	500
13	Utah	241	253	494
14	North Dakota	342	47	389
15	Montana	288	6	294
16	Mississippi	179	8	187
17	West Virginia	13	99	112
18	Alabama	51	57	108
19	Michigan	61	47	108
20	Illinois	107	0	107
21	Kentucky	27	66	93
22	Florida	73	14	87
23	Ohio	67	0	67
24	Arkansas	49	4	53
25	Nebraska	18	0	18
26	Indiana	15	0	15
27	Pennsylvania	12	0	12
Lower-48 States		17,595	7,588	25,183
Miscellaneous		15	9	24
U.S. Total		22,677	7,943	30,620

Source: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002*

Table 3.2 Proved Reserves of Crude Oil and Natural Gas Liquids in Utah, 1960-2002
Thousands Barrels

Year	Crude Oil Reserves ¹	Natural Gas Liquids Reserves ¹	Total Liquids Reserves	Production ²	Crude Oil Reserves-to-Production Ratio
1960	208,464	50,702	259,166	37,596	5.5
1961	218,105	50,418	268,523	33,084	6.6
1962	197,722	48,788	246,510	30,953	6.4
1963	219,576	46,591	266,167	33,449	6.6
1964	219,508	54,657	274,165	28,555	7.7
1965	196,877	51,358	248,235	25,319	7.8
1966	213,391	42,708	256,099	24,150	8.8
1967	201,046	42,748	243,794	24,044	8.4
1968	180,039	40,495	220,534	23,504	7.7
1969	195,290	38,789	234,079	23,306	8.4
1970	181,512	36,290	217,802	23,366	7.8
1971	165,806	33,947	199,753	23,630	7.0
1972	244,397	34,002	278,399	26,510	9.2
1973	264,512	52,544	317,056	32,544	8.1
1974	250,648	52,354	303,002	39,443	6.4
1975	208,318	49,367	257,685	40,144	5.2
1976	183,176	42,488	225,664	35,384	5.2
1977	252,000	34,317	286,317	37,316	6.8
1978	188,000	31,714	219,714	35,765	5.3
1979	201,000	59,000	260,000	27,652	7.3
1980	198,000	127,000	325,000	24,979	7.9
1981	190,000	277,000	467,000	24,309	7.8
1982	173,000	185,000	358,000	23,595	7.3
1983	187,000	221,000	408,000	31,045	6.0
1984	172,000	258,000	430,000	38,054	4.5
1985	276,000	285,000	561,000	41,080	6.7
1986	269,000	228,000	497,000	39,243	6.9
1987	284,000	232,000	516,000	35,829	7.9
1988	260,000	289,000	549,000	33,365	7.8
1989	246,000	224,000	470,000	28,504	8.6
1990	249,000	203,000	452,000	27,705	9.0
1991	233,000	218,000	451,000	25,928	9.0
1992	217,000	193,000	410,000	24,074	9.0
1993	228,000	175,000	403,000	21,826	10.4
1994	231,000	158,000	389,000	20,668	11.2
1995	216,000	166,000	382,000	19,976	10.8
1996	237,000	204,000	441,000	19,529	12.1
1997	234,000	213,000	447,000	19,593	11.9
1998	201,000	182,250	383,250	19,218	10.5
1999	268,000	166,050	434,050	16,362	16.4
2000	283,000	255,690	538,690	15,609	18.1
2001	271,000	242,190	513,190	15,274	17.7
2002	241,000	253,000	494,000	13,771	17.5

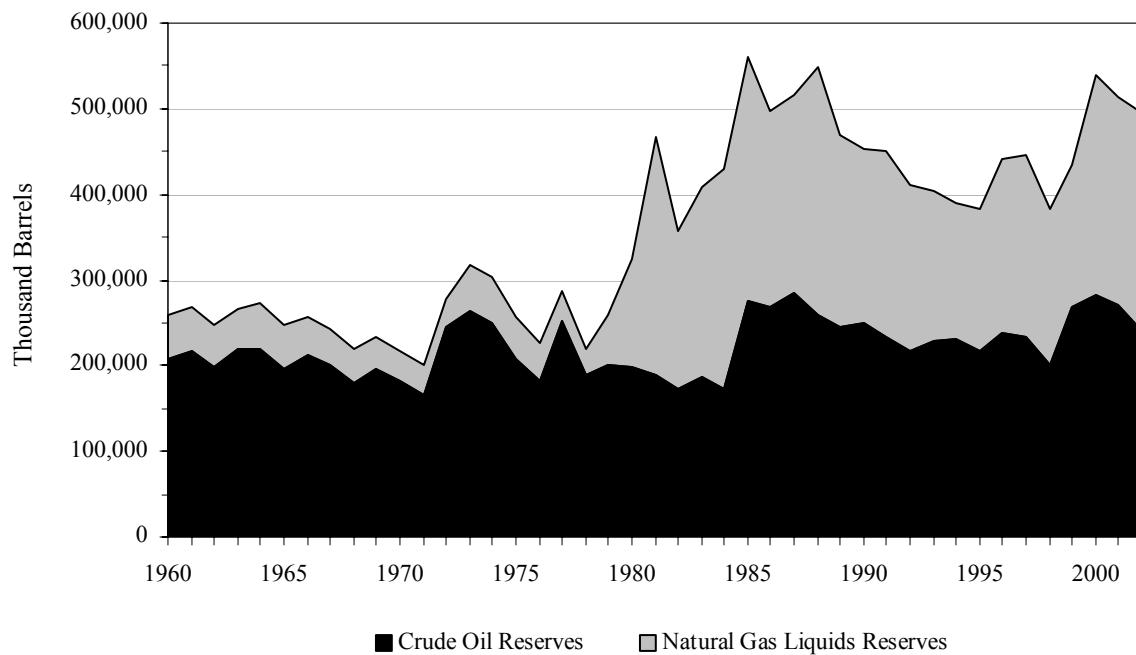
Source: ¹American Petroleum Institute, *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada, 1960-1976*

¹EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002, 1977-2002*

²Utah Division of Oil, Gas and Mining

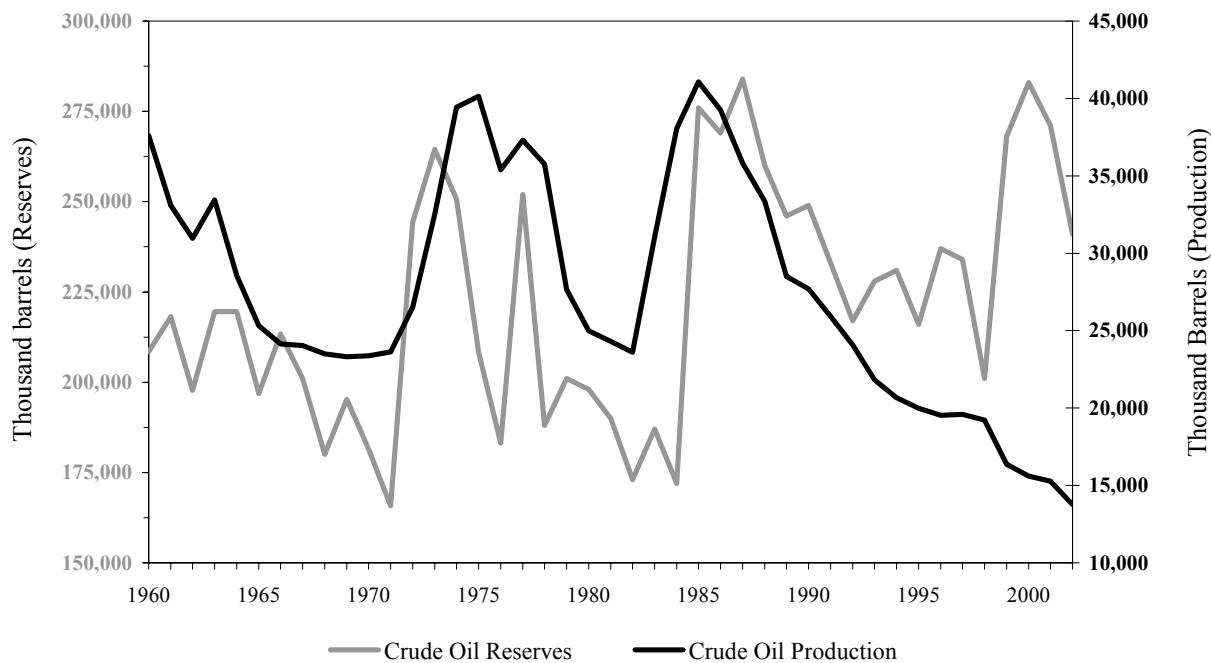
Note: The reserves-to-production ratio is a measure of remaining years of reserves at the current production level.

Figure 3.1 Proved Reserves of Crude Oil and Natural Gas Liquids in Utah, 1960-2002



Source: American Petroleum Institute, *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada, 1960-1976*
EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002, 1977-2002*

Figure 3.2 Utah Crude Oil Production and Total Proved Reserves, 1960-2002



Source: American Petroleum Institute, *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada, 1960-1976*
 EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002, 1977-2002*
 Utah Division of Oil, Gas and Mining (for production data)

Table 3.3 Exploration and Drilling Activity in Utah, 1960-2002

Year	Drilling Permits ¹	Rotary Rigs ²	New Field Wildcat ³	Extension ³	Development ³	Dry ³	Service ³	Total Wells ³
Average Active Rigs								
1960	262	29	12	13	111	100	na	236
1961	302	33	11	21	107	131	na	270
1962	298	29	21	29	101	130	na	281
1963	270	22	14	17	92	133	na	256
1964	203	17	9	14	47	103	na	173
1965	248	14	10	18	60	67	na	155
1966	201	14	5	10	61	76	na	152
1967	173	15	8	11	51	75	2	147
1968	169	12	4	7	52	90	0	153
1969	127	12	3	11	41	69	1	125
1970	99	12	8	12	38	44	1	103
1971	137	17	11	8	24	60	1	104
1972	207	34	17	23	51	59	0	150
1973	273	38	6	35	98	70	0	209
1974	283	42	4	5	134	66	3	212
1975	200	26	7	5	115	70	3	200
1976	236	19	4	2	61	62	3	132
1977	374	30	15	6	164	102	18	305
1978	438	32	18	10	152	98	2	280
1979	393	29	16	12	151	95	8	282
1980	529	43	13	25	132	140	2	312
1981	681	68	36	57	274	205	0	572
1982	658	41	41	33	234	156	20	484
1983	588	36	44	26	207	150	0	427
1984	622	46	44	7	257	141	1	450
1985	392	28	8	8	253	102	3	374
1986	219	13	7	7	148	57	2	221
1987	194	8	9	10	60	46	3	128
1988	165	6	11	9	69	44	2	135
1989	98	5	5	5	50	23	2	85
1990	253	5	13	9	60	19	0	101
1991	402	11	6	24	148	43	6	227
1992	372	13	17	13	259	50	7	346
1993	171	5	46	2	125	32	2	207
1994	307	7	5	10	145	32	10	202
1995	307	7	12	38	145	38	6	239
1996	371	9	19	41	160	36	19	275
1997	527	14	10	68	267	29	20	394
1998	655	12	16	83	333	28	20	480
1999	339	9	7	49	190	14	5	265
2000	673	16	13	105	301	22	6	447
2001	880	21	15	165	409	37	6	632
2002	628	13	29	60	305	26	5	425

Source: ¹Utah Division of Oil, Gas and Mining

²American Petroleum Institute, *Basic Petroleum Data Book*, 1960-1986; and Baker-Hughes Inc., 1987-2002

³Petroleum Information Corporation, *Drilling Success Summary*, 1960-1989, and Utah Division of Oil, Gas and Mining, 1990-2002

Table 3.4 Crude Oil Drilling Activity in Utah by Well Type, 1960-2002
Number of Wells

Year	New Field Wildcat	Extension	Development	Dry	Total
1960	3	7	102	82	194
1961	4	8	81	88	181
1962	11	18	80	94	203
1963	10	8	74	99	191
1964	8	10	40	85	143
1965	8	12	40	46	106
1966	4	8	55	67	134
1967	7	10	39	60	116
1968	4	3	44	73	124
1969	2	6	36	55	99
1970	5	11	32	36	84
1971	9	7	20	50	86
1972	13	21	43	50	127
1973	0	21	88	55	164
1974	2	3	126	60	191
1975	5	3	109	64	181
1976	2	0	52	50	104
1977	6	5	124	74	209
1978	6	5	64	41	116
1979	7	5	58	37	107
1980	4	6	61	58	129
1981	18	26	155	111	310
1982	26	19	127	87	259
1983	28	16	123	90	257
1984	38	6	184	104	332
1985	7	4	190	75	276
1986	5	4	100	38	147
1987	5	7	43	32	87
1988	5	6	51	31	93
1989	5	1	38	17	61
1990	4	6	49	14	73
1991	5	22	59	21	107
1992	4	4	58	11	77
1993	1	2	63	12	78
1994	0	8	62	14	84
1995	1	26	105	26	158
1996	2	32	135	28	197
1997	2	28	162	16	208
1998	6	42	111	10	169
1999	1	0	10	1	12
2000	0	7	80	5	92
2001	0	31	79	7	117
2002	1	8	34	3	46

Source: Petroleum Information Corporation, *Drilling Success Summary*, 1960-1989
Utah Division of Oil, Gas and Mining, 1990-2002

Table 3.5 Well Completions in Utah, 1960-2002

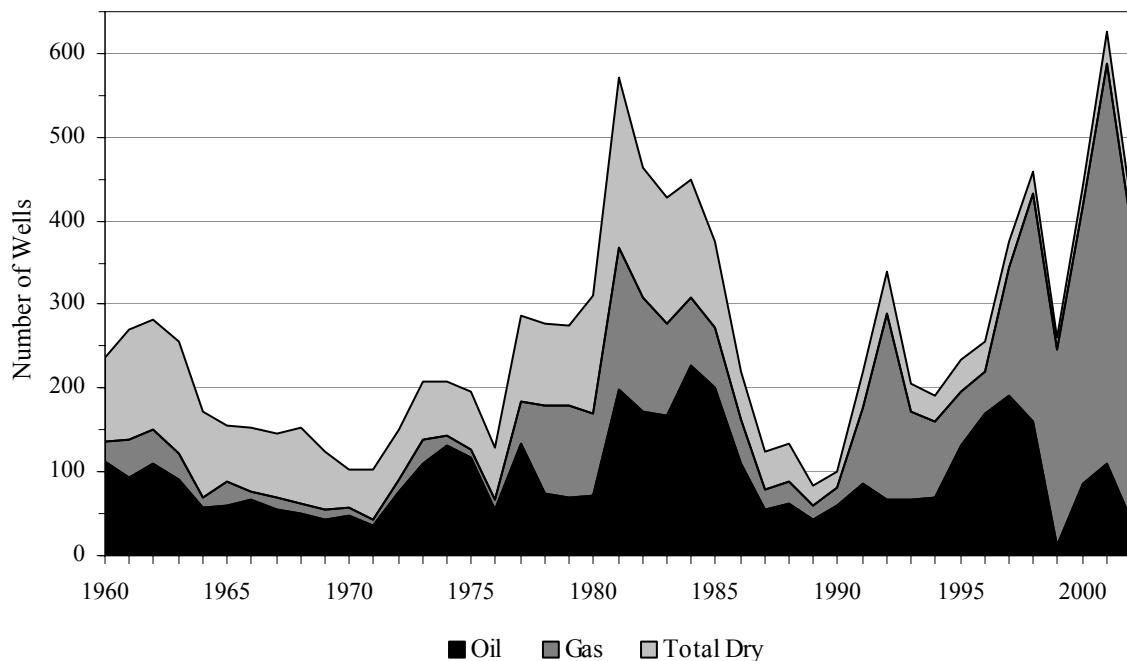
Number of Wells

Year	Oil	Gas	Total Dry	Service	Total	Total Footage Drilled	Average Depth
						Oil and Gas	Feet
						Feet	Feet
1960	112	24	100	na	236	1,357,611	5,753
1961	93	46	131	na	270	1,591,650	5,895
1962	109	42	130	na	281	1,602,559	5,703
1963	92	31	133	na	256	1,413,836	5,523
1964	58	12	103	na	173	894,409	5,170
1965	60	28	67	na	155	786,420	5,074
1966	67	9	76	na	152	793,382	5,220
1967	56	14	75	2	147	753,346	5,125
1968	51	12	90	0	153	809,865	5,293
1969	44	11	69	1	125	720,687	5,765
1970	48	10	44	1	103	699,856	6,795
1971	36	7	60	1	104	790,452	7,601
1972	77	14	59	0	150	1,385,396	9,236
1973	109	30	70	0	209	1,840,706	8,807
1974	131	12	66	3	212	1,719,701	8,112
1975	117	10	70	3	200	1,660,178	8,301
1976	54	13	62	3	132	833,172	6,312
1977	135	50	102	18	305	1,815,361	5,952
1978	75	105	98	2	280	1,740,829	6,217
1979	70	109	95	8	282	1,651,794	5,857
1980	71	99	140	2	312	1,793,177	5,747
1981	199	168	205	0	572	3,764,185	6,581
1982	172	136	156	20	484	3,103,363	6,412
1983	167	110	150	0	427	2,681,406	6,280
1984	228	80	141	1	450	3,073,797	6,831
1985	201	71	102	3	377	2,666,858	7,074
1986	109	53	57	2	221	1,596,866	7,226
1987	55	24	46	3	128	785,620	6,138
1988	62	27	44	2	135	755,167	5,594
1989	44	16	23	2	85	409,979	4,823
1990	59	23	19	0	101	691,088	6,842
1991	86	92	43	6	227	1,253,781	5,523
1992	66	223	50	7	346	2,217,336	6,408
1993	66	107	32	2	207	1,182,823	5,714
1994	70	90	32	10	202	1,020,078	5,050
1995	132	63	38	6	239	1,380,681	5,777
1996	169	51	36	19	275	1,551,343	5,641
1997	192	153	29	20	394	2,245,400	5,699
1998	159	273	28	20	480	2,725,957	5,679
1999	11	235	14	5	265	1,386,289	5,231
2000	87	332	22	6	447	2,658,948	5,948
2001	110	479	37	6	632	3,982,710	6,302
2002	43	351	26	5	425	2,734,018	6,433

Source: Petroleum Information Corporation, *Drilling Success Summary*, 1960-1989

Utah Division of Oil, Gas and Mining, 1990-2002

Figure 3.3 Well Completions in Utah, 1960-2002



Source: Petroleum Information Corporation, *Drilling Success Summary*, 1960-1989
Utah Division of Oil, Gas and Mining, 1990-2002

Table 3.6 U.S. Crude Oil Production by State, 1994-2002

Thousand Barrels

2002 Rank	State	1994	1995	1996	1997	1998	1999	2000	2001	2002	Average Annual Percent Change 1994-2002
1	Federal Offshore (Gulf Coast)	314,587	345,491	373,059	411,271	444,029	495,028	522,898	558,023	567,810	7.7
2	Texas	590,570	560,221	544,191	537,376	505,516	449,339	443,349	424,793	411,985	-4.4
3	Alaska	568,955	541,654	510,766	472,949	429,232	383,198	355,198	351,409	359,335	-5.5
4	California	286,373	278,965	282,409	285,172	285,045	267,878	271,599	260,667	258,010	-1.3
5	Louisiana	127,174	130,881	134,363	131,609	129,177	110,017	106,903	104,918	93,477	-3.6
6	New Mexico	63,483	65,439	72,004	77,442	69,273	65,663	68,623	68,998	67,041	0.9
7	Oklahoma	90,957	87,591	85,636	83,786	78,554	71,196	74,007	68,725	66,642	-3.7
8	Wyoming	79,528	78,884	73,368	70,176	65,676	61,540	60,720	57,436	54,717	-4.5
9	Kansas	47,327	43,616	41,599	41,427	36,131	33,170	34,698	32,736	32,721	-4.4
10	North Dakota	27,690	29,458	32,317	35,826	35,565	32,879	32,714	31,693	30,993	1.6
11	Federal Offshore (California)	58,242	71,724	64,419	54,725	46,289	38,816	35,927	33,193	29,783	-7.4
12	Mississippi	20,124	19,912	19,535	20,930	22,031	19,405	20,092	19,530	18,015	-1.2
13	Colorado	30,907	28,617	24,170	24,374	22,459	19,193	19,027	19,554	17,734	-6.5
14	Montana	16,558	16,529	16,173	16,164	16,603	15,319	15,753	16,287	16,855	0.3
15	Utah	20,668	19,976	19,529	19,593	19,218	16,362	15,609	15,274	13,771	-4.8
16	Illinois	17,148	16,190	15,675	16,115	13,732	12,065	10,851	11,115	12,051	-4.0
17	Alabama	18,303	18,731	16,868	14,810	12,408	11,121	10,460	9,346	8,631	-8.8
18	Arkansas	9,260	8,867	9,088	8,791	7,998	7,129	7,465	7,584	7,344	-2.7
19	Michigan	12,207	11,383	10,740	10,052	8,899	7,835	8,278	7,374	7,219	-6.2
20	Ohio	8,758	8,258	8,305	8,593	6,541	5,968	6,574	6,050	6,004	-4.1
21	Florida	6,093	5,682	6,292	6,381	5,971	4,889	4,889	4,426	3,656	-5.8
22	Nebraska	4,217	3,794	3,541	3,337	3,174	2,661	2,955	2,922	2,779	-4.8
23	Kentucky	4,064	3,492	3,448	2,988	2,919	2,777	3,467	2,970	2,679	-4.4
24	Pennsylvania	1,982	1,939	1,692	1,069	1,330	1,500	1,358	2,233	2,233	5.1
25	Indiana	2,492	2,778	2,523	2,430	2,208	1,964	2,076	2,023	1,962	-2.7
26	West Virginia	1,918	1,933	1,544	1,592	1,453	1,390	1,300	1,499	1,382	-3.5
27	South Dakota	1,453	1,352	1,257	1,335	1,206	1,100	1,171	1,255	1,214	-2.0
28	Nevada	1,694	1,342	1,058	980	799	706	621	571	553	-12.8
29	Tennessee	421	382	381	367	309	348	346	386	275	-4.3
30	New York	299	304	309	276	217	193	181	183	165	-6.8
31	Missouri	123	120	115	114	114	91	106	90	95	-2.6
32	Arizona	65	71	84	82	78	66	57	60	63	0.2
33	Virginia	17	13	13	10	10	9	12	11	22	8.5
	U.S. Total	2,433,657	2,405,589	2,376,471	2,362,142	2,274,164	2,140,815	2,139,284	2,123,334	2,097,216	-1.8

Source: EIA, *Petroleum Supply Annual, Volume I, 2002*

Utah data from Utah Division of Oil, Gas and Mining

Table 3.7 Crude Oil Production in Utah, 1960-2002
Barrels

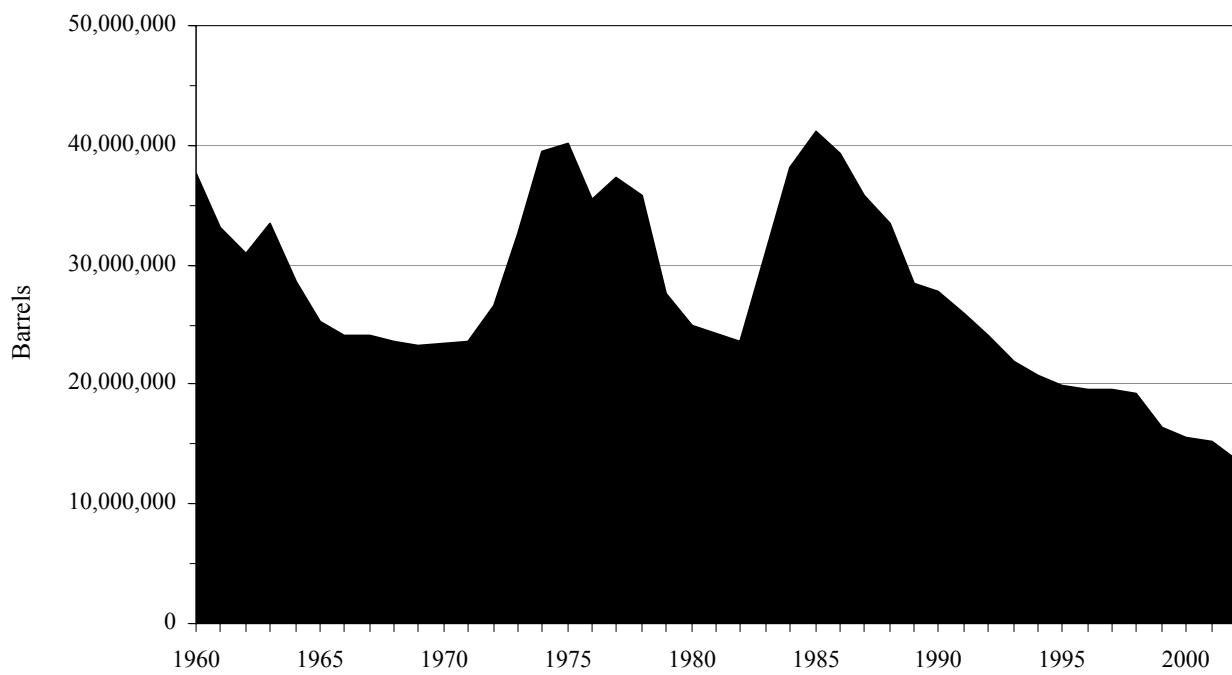
Year	Number of Producing Oil Wells ¹	Production ²	Average Well Production	Average Daily Production	Average Daily Well Production
1960	796	37,595,624	47,231	102,720	129
1961	795	33,083,532	41,615	90,640	114
1962	852	30,953,140	36,330	84,803	100
1963	835	33,448,539	40,058	91,640	110
1964	840	28,554,988	33,994	78,019	93
1965	841	25,319,032	30,106	69,367	82
1966	867	24,150,392	27,855	66,165	76
1967	869	24,044,187	27,669	65,874	76
1968	875	23,504,076	26,862	64,219	73
1969	843	23,305,504	27,646	63,851	76
1970	889	23,365,737	26,283	64,016	72
1971	870	23,629,644	27,161	64,739	74
1972	890	26,510,196	29,787	72,432	81
1973	989	32,543,791	32,906	89,161	90
1974	1,076	39,442,793	36,657	108,062	100
1975	1,323	40,144,239	30,343	109,984	83
1976	1,188	35,384,000	29,785	96,678	81
1977	1,448	37,316,000	25,771	102,236	71
1978	1,291	35,765,000	27,703	97,986	76
1979	1,560	27,652,396	17,726	75,760	49
1980	1,714	24,978,654	14,573	68,248	40
1981	1,543	24,309,495	15,755	66,601	43
1982	1,583	23,595,261	14,905	64,645	41
1983	1,668	31,045,199	18,612	85,055	51
1984	1,862	38,053,871	20,437	103,972	56
1985	1,944	41,079,871	21,132	112,548	58
1986	1,753	39,243,487	22,386	107,516	61
1987	1,813	35,828,536	19,762	98,160	54
1988	1,796	33,364,938	18,577	91,161	51
1989	1,802	28,504,075	15,818	78,093	43
1990	2,063	27,705,048	13,429	75,904	37
1991	2,085	25,927,639	12,435	71,035	34
1992	1,820	24,073,573	13,227	65,775	36
1993	1,858	21,825,986	11,747	59,797	32
1994	1,820	20,667,621	11,356	56,624	31
1995	1,865	19,975,648	10,711	54,728	29
1996	1,981	19,528,780	9,858	53,357	27
1997	1,962	19,592,548	9,986	53,678	27
1998	1,972	19,218,109	9,745	52,652	27
1999	1,686	16,361,751	9,704	44,827	27
2000	1,817	15,609,169	8,591	42,648	23
2001	1,980	15,273,995	7,714	41,847	21
2002	1,957	13,771,204	7,037	37,729	19

Source: ¹Petroleum Information Corporation, *Oil and Gas Production Report, Nevada and Utah, 1960-1989*

¹Utah Division of Oil, Gas and Mining, 1990-2002

²Utah Division of Oil, Gas and Mining

Figure 3.4 Utah Crude Oil Production, 1960-2002



Source: Utah Division of Oil, Gas and Mining

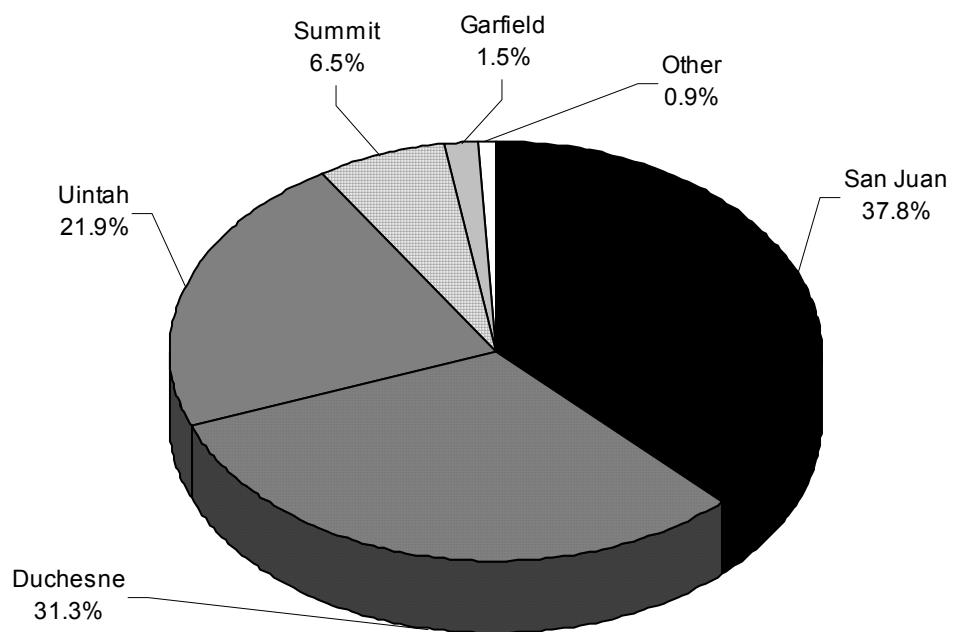
Table 3.8 **Utah Crude Oil Production by County, 1993-2002**
 Barrels

2002 Rank	County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Average Annual Percent Change 1993 to 2002	Cumulative Production Through 2002
1	San Juan	6,780,431	6,669,388	6,585,400	6,637,068	6,927,831	7,302,937	6,764,639	6,151,389	5,503,733	5,191,715	-2.8	531,019,791
2	Duchesne	6,366,835	5,782,606	5,654,825	6,103,552	6,358,598	6,268,634	4,697,532	4,771,287	4,979,765	4,296,480	-3.7	279,947,097
3	Uintah	3,524,284	3,246,123	3,370,300	3,189,781	3,147,423	2,940,615	2,637,875	2,820,120	3,196,788	3,013,476	-1.5	222,874,516
4	Summit	4,515,352	4,441,344	3,930,036	3,116,779	2,735,596	2,341,921	1,911,551	1,477,075	1,240,278	897,549	-16.1	177,297,125
5	Garfield	282,058	273,266	260,031	250,315	239,969	222,038	220,179	214,266	206,270	210,235	-3.2	26,520,200
6	Grand	342,981	243,491	169,097	224,456	177,423	141,786	140,599	195,383	120,148	120,911	-7.5	7,205,459
7	Emery	11,384	8,623	5,744	4,771	3,354	3,662	1,649	3,279	4,552	2,602	-6.1	674,106
8	Daggett	2,539	2,616	1,312	1,828	2,271	1,949	1,898	2,696	1,308	1,463	0.3	358,161
9	Carbon	122	164	27	0	0	0	527	211	128	46	--	141,967
10	Sanpete	0	0	0	230	83	0	72	0	20	0	--	405
11	Washington	0	0	0	0	0	0	0	0	0	0	--	4,774
12	Box Elder	0	0	0	0	0	0	0	0	0	0	--	2,665
State Total*		21,825,986	20,667,621	19,975,648	19,528,780	19,592,548	19,218,109	16,361,751	15,609,169	15,273,995	13,771,204	-4.9	1,246,046,266

Source: Utah Division of Oil, Gas and Mining

* "State Total" reflects more up-to-date data than the sum of individual counties and hence, may differ from the sum of the parts.

Figure 3.5 Utah Crude Oil Production by County, 2002



Source: Utah Division of Oil, Gas and Mining

Table 3.9 Crude Oil Production in Utah by the 25 Largest Fields, 2002
Barrels

Rank	Field	County	Year Discovered	Production	Percent of State Production	Cumulative Production	Percent of Cumulative Production
1	Greater Aneth	San Juan	1956	4,776,563	34.69	428,530,012	34.39
2	Bluebell	Duchesne/Uintah	1955	2,020,498	14.67	152,032,890	12.20
3	Monument Butte	Duchesne	1964	1,642,600	11.93	20,553,940	1.65
4	Altamont	Duchesne	1970	647,802	4.70	117,075,598	9.40
5	Anschutz Ranch East	Summit	1980	628,577	4.56	127,039,321	10.20
6	Red Wash	Uintah	1951	478,790	3.48	80,715,046	6.48
7	Natural Buttes	Uintah	1972	446,131	3.24	4,989,429	0.40
8	Brundage Canyon	Duchesne	1984	432,206	3.14	3,729,592	0.30
9	Wonsits Valley	Uintah	1959	428,582	3.11	48,304,053	3.88
10	Antelope Creek	Duchesne	1983	273,123	1.98	4,116,198	0.33
11	Upper Valley	Garfield	1964	210,235	1.53	26,520,200	2.13
12	Walker Hollow	Uintah	1953	201,175	1.46	17,857,586	1.43
13	Pineview	Summit	1975	196,997	1.43	30,708,062	2.46
14	Gypsum Hills	Uintah	1964	81,740	0.59	1,473,833	0.12
15	8 Mile Flat North	Uintah	1983	67,004	0.49	2,681,332	0.22
16	Ashley Valley	Uintah	1929	57,152	0.42	20,462,933	1.64
17	Cedar Rim	Duchesne	1969	55,224	0.40	12,859,692	1.03
18	Kennedy Wash	Uintah	1980	54,815	0.40	332,234	0.03
19	Lisbon	San Juan	1960	54,435	0.40	51,040,386	4.10
20	Uteland Butte	Uintah	1962	52,626	0.38	981,464	0.08
21	Bridger Lake	Summit	1966	50,920	0.37	13,329,810	1.07
22	Windy Ridge East	Uintah	1988	47,964	0.35	590,455	0.05
23	Undesignated			43,427	0.32	1,118,332	0.09
24	Desert Creek	San Juan	1956	33,597	0.24	1,999,410	0.16
25	Cave Canyon	San Juan	1984	33,311	0.24	2,363,661	0.19
Subtotal				13,015,494	94.51	1,171,405,469	94.01
State Total				13,771,204		1,246,046,266	

Source: Utah Division of Oil, Gas and Mining

Table 3.10 Crude Oil Production in Utah by the 25 Largest Operators, 2002
Barrels

Rank	Operator	Production	Percent of State Production	Cumulative Production*	Percent of Cumulative Production
1	ExxonMobil Oil Corp	3,153,994	22.90	56,441,647	4.53
2	Inland Production Co	1,669,431	12.12	11,127,034	0.89
3	El Paso Prod Oil & Gas Co	1,590,635	11.55	2,966,011	0.24
4	Shenandoah Energy Inc	1,191,477	8.65	4,364,848	0.35
5	Chevron USA Inc	825,802	6.00	192,623,589	15.46
6	Devon Energy Prod Co Lp	780,577	5.67	2,225,382	0.18
7	BP America Production Co	632,706	4.59	632,706	0.05
8	Texaco E&P Inc	631,532	4.59	26,370,790	2.12
9	Citation Oil & Gas Corp	607,835	4.41	8,643,388	0.69
10	Williams Prod RMT Co	425,075	3.09	610,325	0.05
11	Flying J Oil & Gas	424,490	3.08	4,237,246	0.34
12	Petroglyph Operating Co	309,290	2.25	2,950,512	0.24
13	Quinex Energy Corp	199,886	1.45	4,212,154	0.34
14	Dominion Expl & Prod Inc	121,528	0.88	280,213	0.02
15	Rim Southwest Corp	118,995	0.86	228,540	0.02
16	US Oil & Gas Inc	86,603	0.63	4,575,356	0.37
17	Journey Operating LLC	86,158	0.63	213,502	0.02
18	Wildrose Resources Corp	67,785	0.49	1,130,370	0.09
19	EOG Resources Inc	59,764	0.43	161,223	0.01
20	Rim Operating Inc	57,559	0.42	163,793	0.01
21	Tom Brown Inc	55,395	0.40	231,372	0.02
22	Merit Energy Co	51,707	0.38	2,373,666	0.19
23	Hunt Petroleum AEC Inc	50,419	0.37	50,419	0.00
24	Equity Oil Co	41,973	0.30	7,643,433	0.61
25	Elm Ridge Resources Inc	39,546	0.29	74,811	0.01
Subtotal		13,280,162	96.43	334,532,330	26.85
State Total		13,771,204		1,246,046,266	

Source: Utah Division of Oil, Gas and Mining

*Cumulative production numbers will change as companies merge or consolidate. Refer to Utah Division of Oil, Gas, and Mining for historical cumulative production totals for former companies.

Table 3.11 Crude Oil Production by Landownership in Utah, 1960-2002
Barrels

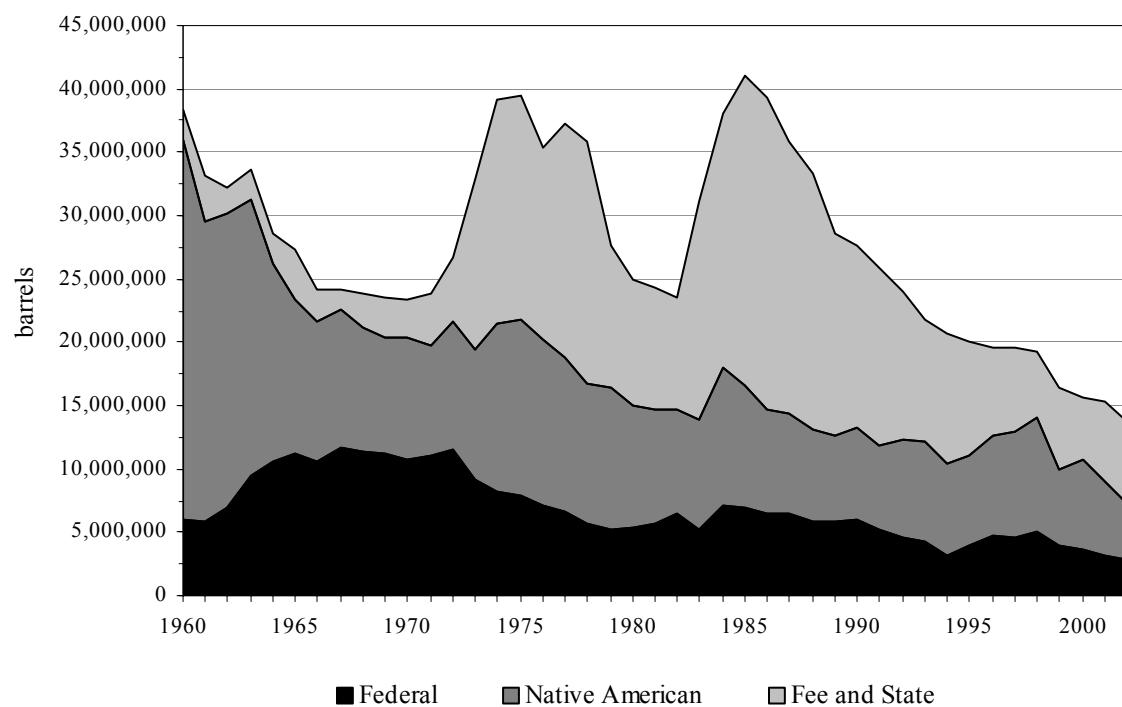
Year	Federal ¹	Native American ¹	Fee and State	Total ²
1960	6,026,547	29,908,204	2,497,624	38,432,375
1961	5,793,970	23,771,895	3,560,057	33,125,922
1962	6,921,282	23,312,036	1,974,248	32,207,566
1963	9,499,892	21,769,278	2,320,888	33,590,058
1964	10,532,879	15,630,619	2,359,009	28,522,507
1965	11,200,542	12,092,831	3,967,778	27,261,151
1966	10,551,634	11,012,524	2,546,105	24,110,263
1967	11,753,542	10,883,897	1,537,642	24,175,081
1968	11,374,753	9,736,363	2,708,354	23,819,470
1969	11,200,470	9,162,860	3,155,979	23,519,309
1970	10,755,483	9,578,200	2,972,012	23,305,695
1971	11,020,240	8,703,633	4,151,454	23,875,327
1972	11,572,780	10,022,721	5,034,418	26,629,919
1973	9,170,278	10,253,570	13,363,067	32,786,915
1974	8,155,149	13,346,894	17,727,771	39,229,814
1975	7,859,147	13,916,798	17,772,432	39,548,377
1976	7,068,045	13,083,578	15,232,377	35,384,000
1977	6,598,072	12,123,221	18,594,707	37,316,000
1978	5,757,469	10,959,570	19,047,961	35,765,000
1979	5,217,641	11,266,465	11,168,290	27,652,396
1980	5,357,524	9,597,679	10,023,451	24,978,654
1981	5,741,831	9,014,098	9,553,566	24,309,495
1982	6,442,595	8,274,857	8,877,809	23,595,261
1983	5,178,825	8,693,450	17,172,924	31,045,199
1984	7,060,663	10,871,207	20,122,001	38,053,871
1985	6,973,348	9,541,767	24,564,756	41,079,871
1986	6,512,093	8,182,235	24,549,159	39,243,487
1987	6,516,132	7,800,045	21,512,359	35,828,536
1988	5,869,096	7,161,520	20,334,322	33,364,938
1989	5,795,761	6,762,666	15,945,648	28,504,075
1990	6,003,862	7,193,799	14,507,387	27,705,048
1991	5,279,341	6,638,655	14,009,643	25,927,639
1992	4,593,083	7,681,932	11,798,558	24,073,573
1993	4,286,583	7,837,548	9,701,855	21,825,986
1994	3,179,306	7,290,508	10,197,807	20,667,621
1995	3,878,921	7,167,286	8,929,441	19,975,648
1996	4,760,131	7,949,683	6,818,966	19,528,780
1997	4,626,115	8,299,273	6,667,160	19,592,548
1998	5,023,287	9,022,246	5,172,576	19,218,109
1999	4,017,966	6,000,979	6,342,806	16,361,751
2000	3,560,636	7,124,690	4,923,843	15,609,169
2001	3,109,347	5,905,373	6,259,275	15,273,995
2002*	2,855,950	4,422,564	6,492,690	13,771,204

Source: ¹Minerals Management Services, *Mineral Revenues*

²Utah Division of Oil, Gas, and Mining

*UEO estimations, except total

Figure 3.6 Utah Crude Oil Production by Landownership, 1960-2002



Source: Minerals Management Services, *Mineral Revenues*
Utah Division of Oil, Gas, and Mining

Table 3.12 U.S. Stripper Oil Well Production by State, January 1, 2003

Rank (by # of wells)	State	Number of Stripper Oil Wells	Production from Stripper Oil Wells	Oil Wells Plugged and Abandoned	Average Daily Production per Well	Total 2002 Oil Production	Percent Production from Stripper Oil Wells
		Bbls	Bbls			Thousand Bbls	
1	Texas	124,551	127,252,695	5,228	2.80	365,817	34.8
2	Oklahoma	56,673	56,299,808	774	2.72	66,030	85.3
3	Kansas	33,317	25,002,372	1,722	2.06	33,343	75.0
4	Ohio	28,850	4,398,074	183	0.42	6,004	73.3
5	California	24,420	35,030,269	2,452	3.93	288,280	12.2
6	Louisiana	20,891	14,999,393	731	1.97	60,378	24.8
7	Kentucky	19,462	2,049,971	237	0.29	2,721	75.3
8	Illinois	17,466	10,720,000	710	1.68	13,250	80.9
9	Pennsylvania	15,470	2,324,000	210	0.41	2,324	100.0
10	New Mexico	13,379	13,386,587	217	2.74	58,293	23.0
11	Wyoming	11,416	8,430,429	228	2.02	54,726	15.4
12	West Virginia	8,210	1,248,000	46	0.42	1,248	100.0
13	Colorado	5,384	4,643,717	119	2.36	19,178	24.2
14	Indiana	4,956	1,962,078	125	1.08	1,962	100.0
15	Michigan	3,428	3,397,608	155	2.72	7,219	47.1
16	Arkansas	3,362	3,087,798	42	2.52	7,344	42.0
17	New York	2,758	174,766	65	0.17	179	97.6
18	Montana	2,274	1,842,960	65	2.22	16,938	10.9
19	Nebraska	1,451	1,717,983	100	3.24	2,779	61.8
20	North Dakota	1,384	2,263,059	55	4.48	30,800	7.3
21	Utah	1,049	1,445,945	16	3.78	13,771	10.5
22	Alabama	639	1,141,083	3	4.89	5,174	22.1
23	Mississippi	442	562,190	109	3.48	17,014	3.3
24	Tennessee	424	246,026	38	1.59	316	77.9
25	Missouri	364	95,071	4	0.72	95	100.0
26	South Dakota	22	27,345	1	3.41	1,214	2.3
27	Arizona	17	23,951	0	3.86	63	38.0
28	Virginia	13	3,428	0	0.72	25	13.7
	Totals	402,072	323,776,606	13,635	2.24	2,037,622*	15.9

Source: Interstate Oil and Gas Compact Commission, *Marginal Oil and Gas: Fuel for Economic Growth, 2003*

*Total from all oil producing states, not just ones with stripper wells

Table 3.13 Stripper Oil Well Production in Utah, 1991-2002

Year	Number of Stripper Wells	Production from Stripper Wells	Total Production	Percent Oil Production from Stripper Wells
			Bbls	
1991	992	2,554,211	25,927,639	9.85
1992	1,028	2,361,588	24,073,573	9.81
1993	1,011	2,470,262	21,825,986	11.32
1994	1,067	2,572,038	20,667,621	12.44
1995	1,181	1,344,294	19,975,648	6.73
1996	876	1,258,718	19,528,780	6.45
1997	821	1,167,482	19,592,548	5.96
1998	838	1,113,425	19,218,109	5.79
1999	898	1,302,804	16,361,751	7.96
2000	943	1,418,314	15,609,169	9.09
2001	1,043	1,449,051	15,273,995	9.49
2002	1,049	1,445,945	13,771,204	10.50
Average				8.78

Source: Interstate Oil and Gas Compact Commission, *Marginal Oil and Gas: Fuel for Economic Growth, 2003* and previous issues

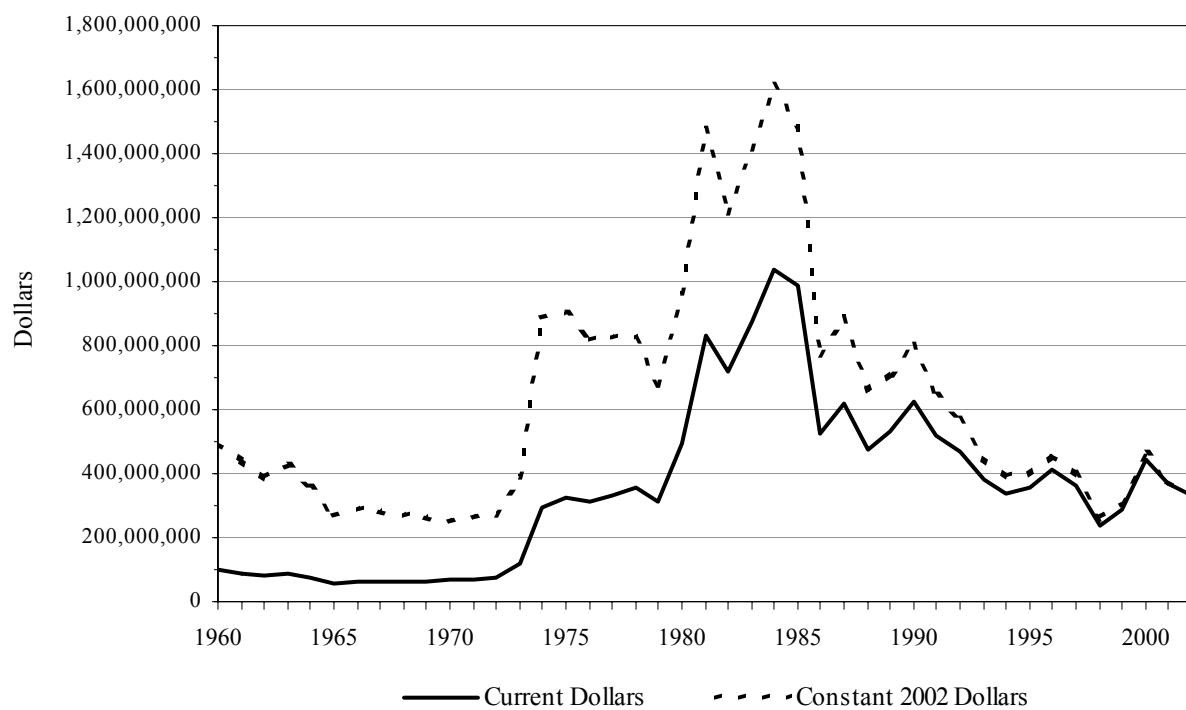
Table 3.14 Production, Price, and Value of Crude Oil in Utah, 1960-2002

Year	Crude Oil Production ¹	Wellhead Price ²	Value of Crude Oil		Value of Crude Oil		
			Barrels	Dollars/Barrel (Current Dollars)	Current Dollars	Dollars/Barrel (Constant 2002 Dollars)	Constant 2002 Dollars
1960	37,595,624	2.61		98,124,579	13.10		492,612,801
1961	33,083,532	2.69		88,994,701	13.35		441,800,789
1962	30,953,140	2.56		79,240,038	12.54		388,185,588
1963	33,448,539	2.64		88,304,143	12.79		427,699,197
1964	28,554,988	2.63		75,099,618	12.55		358,444,623
1965	25,319,032	2.26		57,221,012	10.59		268,058,064
1966	24,150,392	2.64		63,757,035	12.02		290,373,413
1967	24,044,187	2.63		63,236,212	11.62		279,433,320
1968	23,504,076	2.71		63,696,046	11.48		269,799,982
1969	23,305,504	2.80		65,255,411	11.31		263,481,436
1970	23,365,737	2.81		65,657,721	10.77		251,695,462
1971	23,629,644	3.04		71,834,118	11.10		262,199,237
1972	26,510,196	2.94		77,939,976	10.29		272,863,399
1973	32,543,791	3.59		116,832,210	11.90		387,354,410
1974	39,363,032	7.39		290,892,806	22.48		884,911,487
1975	40,025,353	8.06		322,604,345	22.43		897,779,767
1976	35,384,000	8.80		311,379,200	23.18		820,038,839
1977	37,316,000	8.96		334,351,360	22.17		827,337,661
1978	35,765,000	9.98		356,934,700	23.05		824,435,529
1979	27,652,396	11.41		315,513,838	24.33		672,693,619
1980	24,978,654	19.79		494,327,563	38.65		965,429,356
1981	24,309,495	34.14		829,926,159	60.98		1,482,343,661
1982	23,595,261	30.50		719,655,461	51.29		1,210,107,446
1983	31,045,199	28.12		872,990,996	45.48		1,411,893,103
1984	38,053,871	27.21		1,035,445,830	42.43		1,614,622,977
1985	41,079,871	23.98		985,095,307	36.25		1,489,206,367
1986	39,243,487	13.33		523,115,682	19.72		773,802,774
1987	35,828,536	17.22		616,967,390	24.73		885,926,363
1988	33,364,938	14.24		475,116,717	19.78		659,867,875
1989	28,504,075	18.63		531,030,917	24.92		710,422,051
1990	27,705,048	22.61		626,411,135	29.12		806,637,388
1991	25,927,639	19.99		518,293,504	24.84		643,964,938
1992	24,073,573	19.39		466,786,580	23.52		566,202,364
1993	21,825,986	17.48		381,518,235	20.70		451,899,324
1994	20,667,621	16.38		338,535,632	19.01		392,801,473
1995	19,975,648	17.71		353,768,726	20.11		401,731,255
1996	19,528,780	21.10		412,057,258	23.51		459,031,785
1997	19,592,548	18.57		363,833,616	20.29		397,558,263
1998	19,218,109	12.52		240,610,725	13.51		259,729,019
1999	16,361,751	17.69		289,439,375	18.83		308,108,422
2000	15,609,169	28.53		445,329,592	29.69		463,468,951
2001	15,273,995	24.09		367,950,540	24.54		374,780,014
2002	13,771,204	23.87		328,718,639	23.87		328,718,639

Source: ¹Utah Division of Oil, Gas and Mining

²EIA, *Petroleum Marketing Annual*, 2002

Figure 3.7 **Value of Crude Oil in Utah, 1960-2002**



Source: Utah Division of Oil, Gas and Mining
EIA, *Petroleum Marketing Annual, 2002*

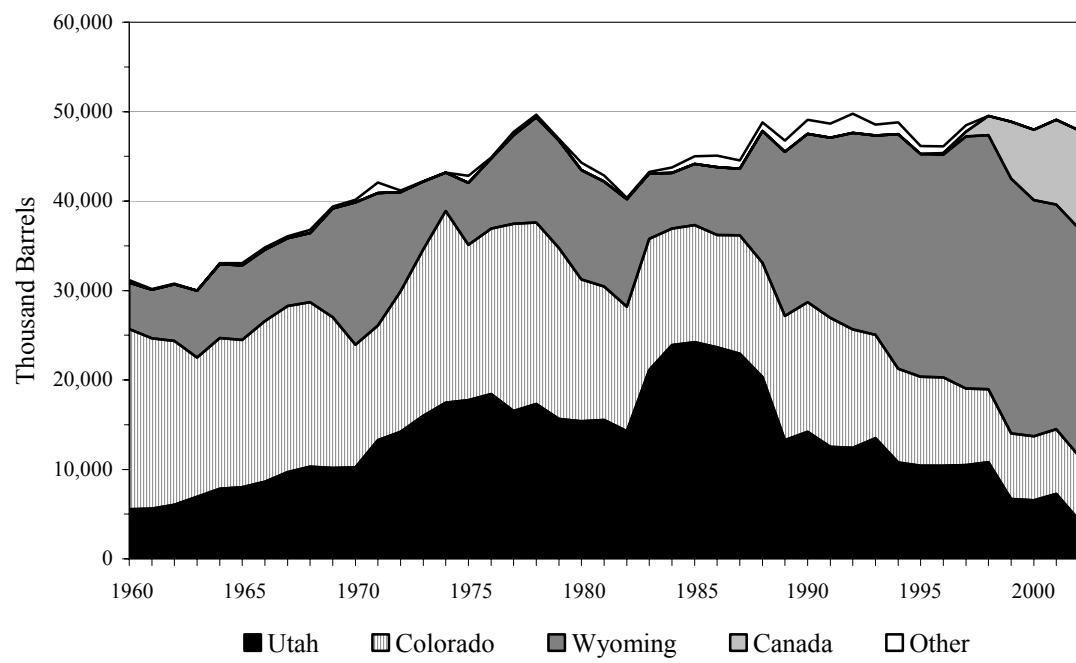
Table 3.15 Utah Refinery Receipts of Crude Oil by State of Origin, 1960-2002
Thousands Barrels

Year	Utah	Colorado	Wyoming	Canada	Other*	Out of State Total	Total
1960	5,536	20,156	5,169	--	296	25,325	30,861
1961	5,621	19,030	5,431	--	67	24,461	30,082
1962	6,060	18,319	6,332	--	64	24,651	30,711
1963	6,948	15,544	7,473	--	0	23,017	29,965
1964	7,844	16,831	8,287	--	81	25,118	32,962
1965	8,027	16,435	8,339	--	249	24,774	32,801
1966	8,619	17,963	7,991	--	227	25,954	34,573
1967	9,713	18,550	7,589	--	211	26,139	35,852
1968	10,303	18,394	7,737	--	342	26,131	36,434
1969	10,172	16,841	12,156	--	206	28,997	39,169
1970	10,236	13,687	15,934	--	288	29,621	39,857
1971	13,272	12,815	14,815	--	1,182	27,630	40,902
1972	14,210	15,705	11,099	--	172	26,804	41,014
1973	15,979	18,631	7,574	--	24	26,205	42,184
1974	17,461	21,445	4,270	--	0	25,715	43,176
1975	17,736	17,372	6,926	--	784	24,298	42,034
1976	18,419	18,512	7,818	--	99	26,330	44,749
1977	16,530	20,935	9,896	--	365	30,831	47,361
1978	17,319	20,280	11,786	--	270	32,066	49,385
1979	15,650	19,077	12,046	--	154	31,123	46,773
1980	15,392	15,846	12,233	--	820	28,079	44,291
1981	15,530	14,931	11,724	--	691	26,655	42,876
1982	14,265	13,911	12,033	--	163	25,944	40,372
1983	21,095	14,696	7,283	--	182	21,979	43,256
1984	23,893	13,045	6,195	--	613	19,240	43,746
1985	24,207	13,107	6,827	--	872	19,934	45,013
1986	23,655	12,567	7,574	--	1,290	20,141	45,086
1987	22,922	13,246	7,454	--	913	20,700	44,535
1988	20,306	12,783	14,739	--	978	27,522	48,806
1989	13,285	13,861	18,380	--	1,250	32,241	46,776
1990	14,191	14,494	18,844	--	1,576	33,338	49,105
1991	12,535	14,423	20,113	--	1,576	34,536	48,647
1992	12,400	13,262	21,949	--	2,159	35,211	49,771
1993	13,480	11,575	22,279	--	1,219	33,854	48,554
1994	10,774	10,480	26,227	--	1,322	36,706	48,802
1995	10,412	9,929	24,916	--	906	34,845	46,163
1996	10,423	9,857	24,905	174	766	34,937	46,126
1997	10,473	8,565	28,191	536	726	37,293	48,492
1998	10,789	8,161	28,414	2,153	na	38,728	50,017
1999	6,701	7,335	28,461	6,371	na	42,166	49,367
2000	6,542	7,173	26,398	7,870	na	41,440	48,482
2001	7,269	7,208	25,120	9,500	na	41,828	49,597
2002	4,331	7,141	25,456	10,966	na	43,563	48,394

Source: EIA, Form EIA-810, *Monthly Refinery Report*

* "Other" includes Nevada, Montana, and New Mexico

Figure 3.8 Utah Refinery Receipts of Crude Oil by State of Origin, 1960-2002



Source: EIA, Form EIA-810, *Monthly Refinery Report*

Table 3.16a Refinery Production Activity in Utah, 2002
Thousand Barrels

Product Description	Beginning Stocks	Receipts	Inputs	Production	Shipments	Ending Stocks
Crude Oil	533	48,394	48,405	0	0	422
Unfinished Oils	506	690	1,479	759	81	395
Motor Gasoline (Oxygenated Gasoline, Other Finished Gasoline)	552	194	1	26,672	26,928	488
Gasoline Blending Components	654	441	1,312	1,691	747	726
Finished Aviation Gasoline	w	w	w	w	w	w
Jet Fuel-Kerosene Type	146	0	5	4,716	4,726	131
Kerosene	w	w	w	w	w	w
Distillate Fuel Oil	482	2,213	1,194	16,613	17,364	750
Residual Fuel Oil	50	11	0	817	830	36
Wax	w	w	w	w	w	w
Petroleum Coke-Marketable	w	w	w	w	w	w
Petroleum Coke-Catalyst	0	0	0	817	0	0
Still Gas	0	17	17	1,952	14	0
Products of Natural Gas Proc. Plants (Butane, Isobutane, Pentanes Plus)	12	1,699	1,695	0	0	16
Other Hydrocarbons, Hydrogen and Oxygenates	18	70	47	0	34	29
Isobutane (incl. Isobutylene) - LRG	27	723	689	282	322	22
Propane (incl. Propylene) - LRG	80	0	1	658	655	79
n-Butane (incl. Butylene) - LRG	58	720	830	375	288	35
Other Products-Non Fuel	w	w	w	w	w	w

Source: EIA, Form EIA-810, *Monthly Refinery Report*

w = Withheld to avoid disclosure of individual company data

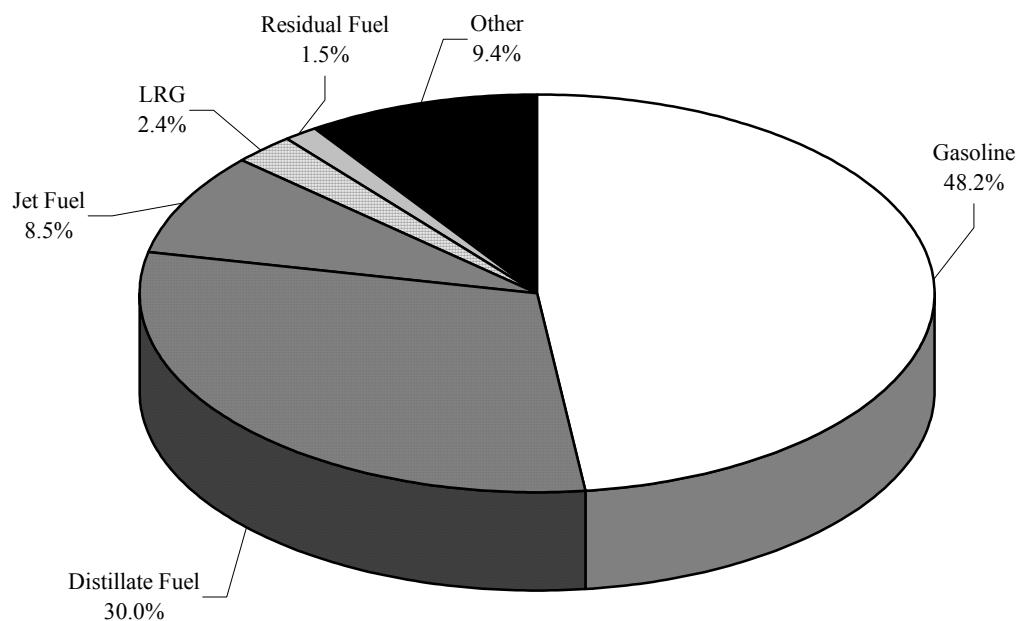
Table 3.16b Refinery Production Activity in Utah, 2001
Thousand Barrels

Product Description	Beginning Stocks	Receipts	Inputs	Production	Shipments	Ending Stocks
Crude Oil	454	49,597	49,509	0	9	533
Unfinished Oils	413	435	1,215	891	1	506
Motor Gasoline (Oxygenated Gasoline, Other Finished Gasoline)	450	0	0	26,759	26,656	552
Gasoline Blending Components	424	347	1,173	1,881	769	654
Finished Aviation Gasoline	w	w	w	w	w	w
Jet Fuel-Kerosene Type	142	0	3	4,935	4,928	146
Kerosene	w	w	w	w	w	w
Distillate Fuel Oil	556	2,042	1,327	16,495	17,283	482
Residual Fuel Oil	54	1	0	976	935	50
Wax	w	w	w	w	w	w
Petroleum Coke-Marketable	w	w	w	w	w	w
Petroleum Coke-Catalyst	0	0	0	875	0	0
Still Gas	0	26	26	1,955	25	0
Products of Natural Gas Proc. Plants (Butane, Isobutane, Pentanes Plus)	10	1,671	1,669	0	0	12
Other Hydrocarbons, Hydrogen and Oxygenates	13	60	41	0	16	18
Isobutane (incl. Isobutylene) - LRG	22	707	715	359	342	27
Propane (incl. Propylene) - LRG	30	0	0	655	5,997	80
n-Butane (incl. Butylene) - LRG	66	772	857	387	310	58
Other Products-Non Fuel	w	w	w	w	w	w

Source: EIA, Form EIA-810, *Monthly Refinery Report*

w = Withheld to avoid disclosure of individual company data

Figure 3.9 Refinery Production Activity in Utah, 2002



Source: EIA, Form EIA-810, *Monthly Refinery Report*

Table 3.17 Petroleum Refining Capacity in Utah as of January 1, 2003

Barrels per Stream Day (except where noted)

Company	Location	Crude capacity		Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Reforming		Catalytic Hydrocracking	Catalytic Hydrotreating		Fuel Solvents Deasphalting
		Barrels/calendar day (Operating)	Barrels/stream day (Operating)	Delayed Coking	Fresh	Recycled	Low Pressure	High Pressure	Naphtha Reformer Feed	Distillate	Other/Residual		
Big West Oil Co.	N. Salt Lake	24,000	25,000	5,000	0	10,000	0	0	5,500	0	7,000	7,000	0
Chevron U.S.A.	Salt Lake City	45,000	49,000	27,500	8,500	14,000	0	0	8,000	0	8,300	13,300	7,200
Holly Refining and Marketing (formerly Phillips 66 Co.)	Woods Cross	24,700	26,000	5,500	0	8,900	0	0	7,700	0	12,600	1,900	0
Silver Eagle Refining (formerly Inland Refining Inc.)	Woods Cross	11,000	12,500	6,000	0	0	0	0	2,200	0	2,200	4,000	0
Tesoro West Coast	Salt Lake City	58,000	60,000	0	0	23,000	2,200	0	11,600	0	11,600	0	0
Utah Total		162,700	172,500	37,300	8,500	55,900	2,200	0	35,000	0	41,700	26,200	7,200
													5,040

Company	Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen	Sulfur
					Isobutane	Isopentane and Isohexane	(MMcf/d)	(short tons/day)	
Big West Oil Co.	N. Salt Lake	1,800	0	0	1,400	1,700	0	0	4
Chevron U.S.A.	Salt Lake City	5,600	0	0	1,300	0	0	1,748	0
Holly Refining and Marketing (formerly Phillips 66 Co.)	Woods Cross	2,200	0	1,800	0	3,000	0	0	10
Silver Eagle Refining (formerly Inland Refining Inc.)	Woods Cross	0	0	1,500	0	0	0	1	0
Tesoro West Coast	Salt Lake City	6,000	0	0	0	0	0	0	18
Utah Total		15,600	0	3,300	2,700	4,700	0	1,748	1
									53

Source: EIA, *Petroleum Supply Annual, Volume 1, 2002*

Table 3.18 Petroleum Refinery Utilization of Capacity in Utah, 1960-2002

Year	Capacity		Crude Oil Runs		Utilization Rate
	Barrels per day	Barrels per year	Barrels per day	Barrels per day	
1960	97,000	31,126,000	85,044	87.7	
1961	101,000	30,123,000	82,529	81.7	
1962	101,000	30,655,000	83,986	83.2	
1963	102,500	30,104,000	82,477	80.5	
1964	102,500	32,930,000	89,973	87.8	
1965	103,000	33,176,000	90,893	88.2	
1966	103,200	34,792,000	95,321	92.4	
1967	109,000	36,081,000	98,852	90.7	
1968	111,600	36,750,000	100,410	90.0	
1969	112,600	39,253,000	107,542	95.5	
1970	114,900	40,113,000	109,899	95.6	
1971	117,700	42,021,000	115,126	97.8	
1972	119,300	41,229,000	112,648	94.4	
1973	121,300	42,330,000	115,973	95.6	
1974	133,150	43,008,000	117,830	88.5	
1975	143,000	42,797,000	117,252	82.0	
1976	152,000	44,907,000	122,697	80.7	
1977	158,425	47,857,000	131,115	82.8	
1978	158,335	49,522,000	135,677	85.7	
1979	162,425	48,180,000	132,000	81.3	
1980	167,000	44,421,000	121,369	72.7	
1981	167,000	43,007,000	117,827	70.6	
1982	166,500	40,368,000	110,597	66.4	
1983	168,000	43,185,000	118,315	70.4	
1984	169,400	43,539,000	118,959	70.2	
1985	161,500	45,021,000	123,345	76.4	
1986	154,500	45,034,000	123,381	79.9	
1987	153,500	44,483,000	121,871	79.4	
1988	154,500	48,796,000	133,322	86.3	
1989	154,500	46,767,000	128,129	82.9	
1990	154,500	48,977,000	134,184	86.9	
1991	154,500	48,852,000	133,841	86.6	
1992	154,500	49,496,000	135,235	87.5	
1993	154,500	48,307,000	132,348	85.7	
1994	154,500	48,486,000	132,838	86.0	
1995	150,500	46,157,000	126,458	84.0	
1996	146,500	45,766,000	125,044	85.4	
1997	158,500	48,486,000	132,838	83.8	
1998	158,000	49,531,000	135,701	85.9	
1999	158,000	47,658,000	130,570	82.6	
2000	162,000	48,445,000	132,363	81.7	
2001	163,000	49,509,000	135,641	83.2	
2002	162,700	48,405,000	132,616	81.5	

Source: EIA, Form EIA-810, *Monthly Refinery Report*

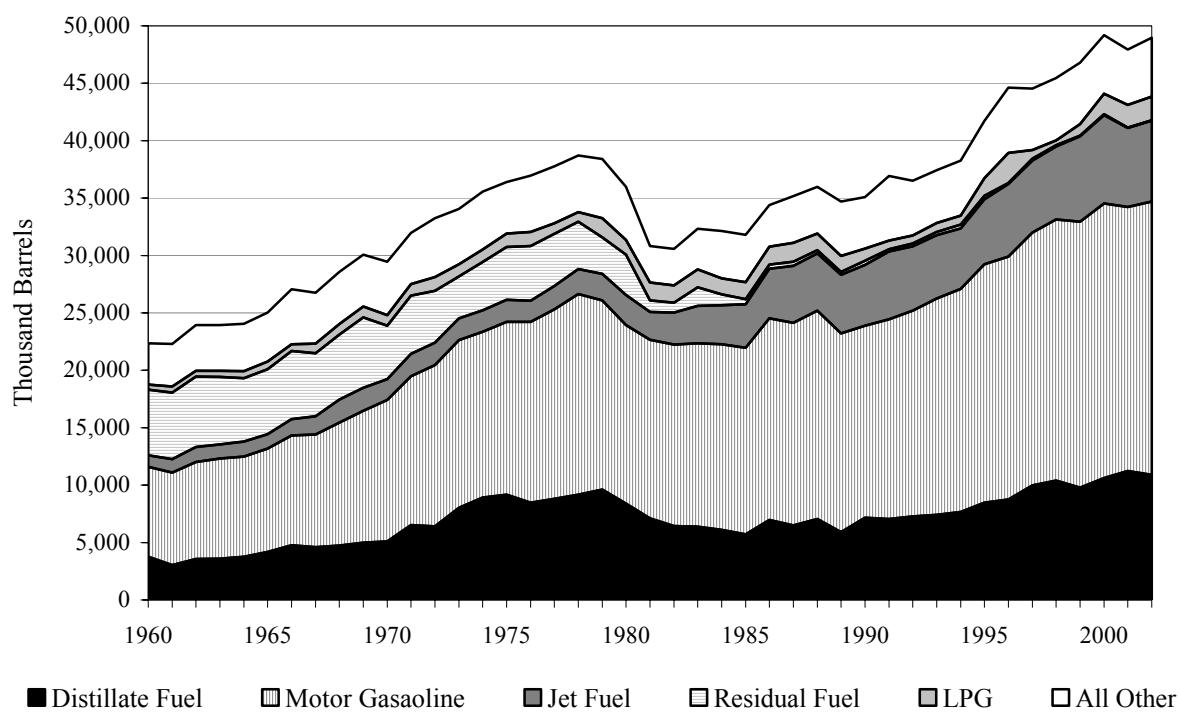
Table 3.19 Consumption of Petroleum Products in Utah, 1960-2002
Thousand Barrels

Year	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel	Jet Fuel	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel	Other Petroleum Products	Total
1960	813	595	3,775	1,003	36	452	214	7,813	5,715	1,926	22,341
1961	687	715	3,040	1,172	212	538	208	8,052	5,783	1,881	22,288
1962	903	532	3,568	1,311	330	511	210	8,455	6,107	2,023	23,950
1963	801	529	3,581	1,237	384	521	210	8,736	5,872	2,065	23,937
1964	791	391	3,749	1,302	564	599	221	8,751	5,519	2,177	24,063
1965	838	383	4,193	1,244	474	677	251	9,001	5,662	2,305	25,029
1966	1,209	370	4,778	1,426	626	595	261	9,554	5,928	2,314	27,060
1967	1,072	312	4,604	1,564	547	836	221	9,819	5,497	2,290	26,761
1968	1,021	251	4,737	1,987	650	928	243	10,712	5,657	2,373	28,559
1969	1,209	223	4,995	1,999	436	959	251	11,476	6,129	2,397	30,075
1970	1,576	178	5,107	1,808	250	939	256	12,308	4,656	2,372	29,450
1971	1,399	168	6,522	1,947	301	1,010	247	12,958	5,076	2,336	31,965
1972	1,804	179	6,403	1,963	378	1,223	265	14,052	4,494	2,487	33,247
1973	1,419	172	8,028	1,889	361	1,080	305	14,614	3,638	2,549	34,054
1974	1,571	187	8,906	1,864	198	1,096	292	14,439	4,222	2,796	35,571
1975	1,219	161	9,165	1,903	146	1,169	232	15,063	4,603	2,731	36,391
1976	1,661	161	8,484	1,828	112	1,219	257	15,741	4,768	2,731	36,961
1977	1,823	174	8,797	2,034	113	928	299	16,509	4,543	2,534	37,754
1978	1,699	164	9,168	2,164	112	841	321	17,478	4,122	2,632	38,701
1979	1,903	147	9,610	2,302	158	1,658	336	16,480	3,187	2,628	38,409
1980	1,477	139	8,401	2,637	102	1,301	299	15,534	3,495	2,598	35,983
1981	927	140	7,098	2,424	155	1,546	287	15,548	1,022	1,665	30,812
1982	933	76	6,438	2,801	192	1,523	262	15,793	855	1,692	30,563
1983	820	103	6,387	3,284	58	1,577	274	15,954	1,600	2,259	32,316
1984	1,340	78	6,107	3,413	49	1,387	292	16,151	953	2,359	32,129
1985	1,576	94	5,715	3,808	31	1,486	272	16,240	431	2,155	31,809
1986	1,295	110	6,978	4,335	24	1,542	266	17,541	360	1,955	34,406
1987	1,429	99	6,507	4,969	30	1,652	301	17,623	357	2,205	35,172
1988	1,069	112	7,060	4,977	25	1,432	290	18,148	288	2,569	35,971
1989	1,671	106	5,917	5,095	11	1,386	298	17,311	250	2,649	34,694
1990	1,378	106	7,162	5,281	13	1,074	307	16,724	367	2,670	35,082
1991	2,870	118	7,038	5,917	17	747	274	17,395	200	2,357	36,933
1992	1,633	133	7,286	5,607	4	696	280	17,905	245	2,736	36,524
1993	1,730	114	7,422	5,518	9	779	285	18,837	285	2,444	37,422
1994	1,819	88	7,653	5,270	9	784	298	19,433	343	2,579	38,275
1995	2,179	64	8,469	5,658	6	1,531	292	20,771	294	2,453	41,718
1996	2,361	52	8,746	6,303	9	2,621	284	21,170	87	2,996	44,628
1997	1,992	61	9,976	6,277	12	750	300	22,024	149	2,985	44,526
1998	2,452	51	10,398	6,373	13	430	314	22,735	96	2,583	45,446
1999	2,380	73	9,793	7,443	13	1,013	317	23,141	60	2,573	46,806
2000	2,295	84	10,629	7,701	13	1,804	312	23,895	71	2,375	49,179
2001	1,441	76	11,236	6,880	17	1,988	286	22,993	18	3,004	47,939
2002*	2,076	67	10,900	7,039	17	2,065	300	23,806	31	2,668	48,969

Source: EIA, State Energy Data Report, 2001

*UEO estimations

Figure 3.10 Consumption of Petroleum Products in Utah, 1960-2002



Source: EIA, *State Energy Data Report, 2001*

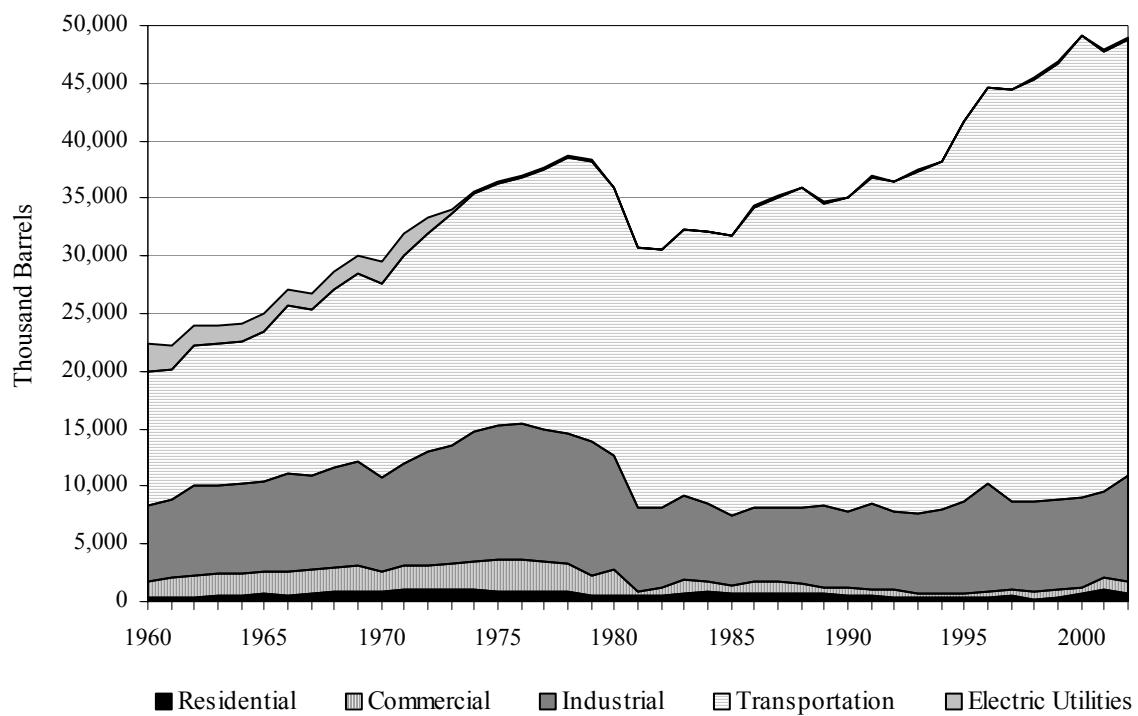
Table 3.20 Consumption of Petroleum Products in Utah by End Use, 1960-2002
Thousand Barrels

Year	Residential	Commercial	Industrial	Transportation	Electric Utilities	Total
1960	349	1,349	6,642	11,698	2,302	22,341
1961	431	1,683	6,753	11,249	2,172	22,288
1962	400	1,904	7,780	12,189	1,677	23,950
1963	436	1,957	7,633	12,308	1,603	23,937
1964	517	1,942	7,708	12,364	1,531	24,063
1965	624	1,899	7,910	12,991	1,605	25,029
1966	570	1,981	8,597	14,482	1,430	27,060
1967	698	2,004	8,305	14,343	1,411	26,761
1968	832	2,085	8,792	15,413	1,437	28,559
1969	857	2,203	9,134	16,256	1,624	30,075
1970	844	1,687	8,249	16,893	1,777	29,450
1971	974	2,087	8,896	18,127	1,880	31,965
1972	1,082	2,028	9,850	19,018	1,269	33,247
1973	1,017	2,266	10,191	20,217	363	34,054
1974	985	2,441	11,312	20,692	141	35,571
1975	925	2,736	11,541	21,028	162	36,391
1976	933	2,748	11,712	21,488	80	36,961
1977	803	2,641	11,567	22,451	292	37,754
1978	817	2,424	11,309	23,969	182	38,701
1979	561	1,761	11,610	24,214	263	38,409
1980	460	2,255	9,897	23,245	126	35,983
1981	483	421	7,237	22,592	79	30,812
1982	600	641	6,839	22,424	59	30,563
1983	730	1,240	7,152	23,115	79	32,316
1984	813	998	6,690	23,570	58	32,129
1985	707	747	6,068	24,207	80	31,809
1986	698	1,091	6,410	26,072	135	34,406
1987	747	995	6,392	26,850	187	35,172
1988	760	887	6,570	27,651	103	35,971
1989	645	622	7,094	26,249	86	34,694
1990	567	613	6,649	27,169	84	35,082
1991	550	565	7,454	28,282	82	36,933
1992	432	542	6,772	28,717	62	36,524
1993	336	435	6,858	29,730	62	37,422
1994	263	478	7,187	30,290	57	38,275
1995	285	454	7,977	32,936	66	41,718
1996	329	456	9,525	34,260	59	44,628
1997	582	527	7,522	35,838	58	44,526
1998	222	579	7,934	36,643	66	45,446
1999	396	682	7,750	37,923	55	46,806
2000	672	513	7,877	40,015	101	49,179
2001	1,097	922	7,606	38,204	110	47,939
2002*	751	926	9,254	37,930	108	48,969

Source: EIA, *State Energy Data Report, 2001*

*UEO estimations

Figure 3.11 Consumption of Petroleum Products in Utah by End Use, 1960-2002



Source: EIA, *State Energy Data Report, 2001*

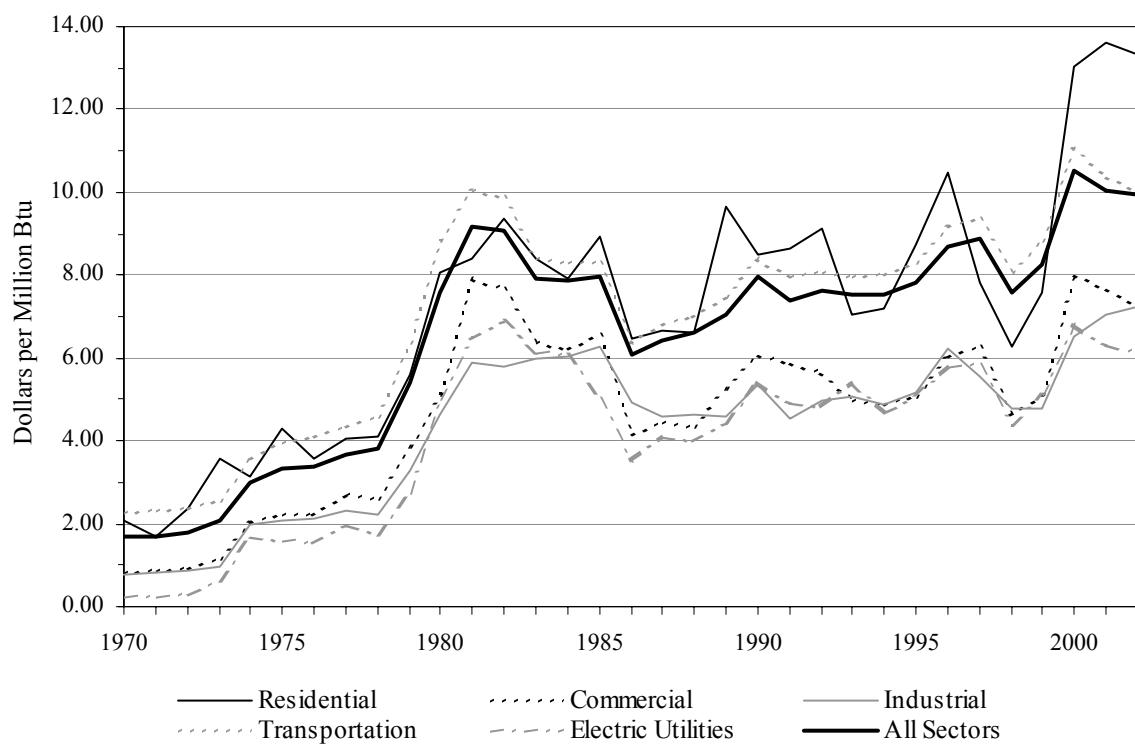
Table 3.21 End-Use Price of Petroleum Products Consumed in Utah, 1970-2002
 Dollars per Million Btu

Year	Residential	Commercial	Industrial	Transportation	Electric Utilities	All Sectors
1970	2.06	0.84	0.77	2.28	0.26	1.69
1971	1.70	0.86	0.84	2.32	0.26	1.71
1972	2.37	0.90	0.85	2.39	0.27	1.81
1973	3.57	1.18	0.98	2.55	0.62	2.05
1974	3.12	2.05	1.99	3.56	1.71	2.99
1975	4.31	2.22	2.08	3.97	1.59	3.31
1976	3.57	2.24	2.11	4.11	1.54	3.39
1977	4.07	2.69	2.32	4.37	1.99	3.65
1978	4.12	2.61	2.21	4.57	1.72	3.80
1979	5.59	3.84	3.26	6.37	2.74	5.40
1980	8.08	5.14	4.64	8.82	5.00	7.58
1981	8.40	7.90	5.89	10.06	6.46	9.19
1982	9.35	7.69	5.80	9.89	6.92	9.09
1983	8.41	6.35	5.97	8.42	6.11	7.93
1984	7.91	6.21	6.03	8.32	6.09	7.89
1985	8.95	6.55	6.28	8.29	5.02	7.98
1986	6.48	4.15	4.91	6.39	3.54	6.10
1987	6.65	4.42	4.58	6.79	4.12	6.42
1988	6.62	4.37	4.62	6.98	3.98	6.62
1989	9.67	5.27	4.57	7.49	4.45	7.07
1990	8.48	6.08	5.35	8.39	5.42	7.96
1991	8.66	5.88	4.55	7.98	4.90	7.39
1992	9.11	5.65	4.99	8.07	4.84	7.65
1993	7.04	4.96	5.06	7.96	5.39	7.53
1994	7.18	4.86	4.88	8.03	4.67	7.55
1995	8.72	5.08	5.17	8.30	5.05	7.82
1996	10.45	6.02	6.21	9.18	5.79	8.69
1997	7.84	6.25	5.56	9.38	5.84	8.86
1998	6.27	4.64	4.77	8.08	4.40	7.57
1999	7.59	5.11	4.78	8.82	5.14	8.24
2000	13.04	8.02	6.52	11.08	6.79	10.50
2001	13.63	7.67	7.06	10.40	6.34	10.03
2002*	13.33	7.28	7.24	10.06	6.13	9.96

Source: EIA, *State Energy Data Report, 2001*

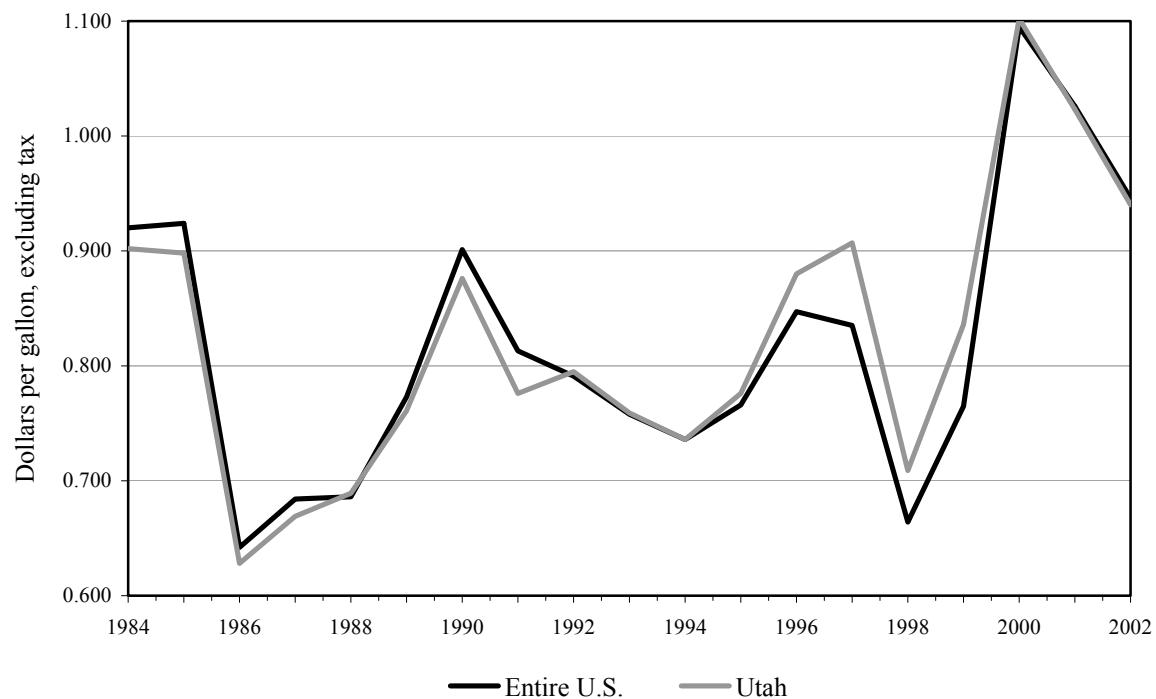
*UEO estimations

Figure 3.12 End Use Price of Petroleum Products in Utah, 1970-2002



Source: EIA, *State Energy Data Report, 2001*

Figure 3.13 Price (excluding tax) of Motor Gasoline for the U.S. and Utah, 1984-2002



Source: EIA, *Petroleum Marketing Annual, 2002*

Table 3.23 **Federal and State Motor Fuel Taxes, January 1, 2003**
Cents per gallon

	Motor Gasoline	Diesel Fuel	Gasohol		Motor Gasoline	Diesel Fuel	Gasohol
Federal	18.40	24.40	13.20		Mississippi	18.40	18.40
Average State Tax	20.28	20.73	20.15		Missouri	17.00	17.00
Alabama	18.00	19.00	18.00		Montana	27.00	27.75
Alaska	8.00	8.00	8.00		Nebraska	24.60	24.60
Arizona	18.00	18.00	18.00		Nevada	23.00	27.00
Arkansas	21.50	22.50	21.50		New Hampshire	19.50	19.50
California	18.00	18.00	18.00		New Jersey	10.50	13.50
Colorado	22.00	20.50	22.00		New Mexico	18.90	19.90
Connecticut	25.00	26.00	24.00		New York	22.00	20.25
Delaware	23.00	22.00	23.00		North Carolina	23.40	23.40
District of Columbia	20.00	20.00	20.00		North Dakota	21.00	21.00
Florida	13.60	25.90	13.10		Ohio	22.00	22.00
Georgia	7.50	7.50	7.50		Oklahoma	17.00	14.00
Hawaii	16.00	16.00	16.00		Oregon	24.00	24.00
Idaho	25.00	25.00	22.50		Pennsylvania	25.90	30.80
Illinois	19.00	21.50	19.00		Rhode Island	30.00	30.00
Indiana	18.00	16.00	18.00		South Carolina	16.00	16.00
Iowa	20.00	22.50	19.00		South Dakota	22.00	22.00
Kansas	23.00	25.00	23.00		Tennessee	20.00	17.00
Kentucky	16.40	13.40	16.40		Texas	20.00	20.00
Louisiana	20.00	20.00	20.00		Utah	24.50	24.50
Maine	22.00	23.00	22.00		Vermont	20.00	26.00
Maryland	23.50	24.25	23.50		Virginia	17.50	16.00
Massachusetts	21.00	21.00	21.00		Washington	23.00	23.00
Michigan	19.00	15.00	19.00		West Virginia	25.35	25.35
Minnesota	20.00	20.00	20.00		Wisconsin	28.10	28.10
					Wyoming	14.00	14.00

Source: EIA, *Petroleum Marketing Monthly*

NATURAL GAS

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Table 4.1 U.S. Proved Reserves of Natural Gas by State, December 31, 2002
Billion Cubic Feet

Rank (by Total Dry)	State	Nonassociated Natural Gas	Associated- Dissolved Natural Gas	Total Wet After Lease Separation	Total Dry
1	Texas	41,104	6,387	47,491	44,297
2	Wyoming	20,970	561	21,531	20,527
3	New Mexico	16,971	1,482	18,453	17,320
4	Oklahoma	14,576	1,177	15,753	14,886
5	Colorado	13,251	1,097	14,348	13,888
6	Louisiana	8,520	670	9,190	8,960
7	Alaska	2,157	6,376	8,533	8,468
8	Kansas	5,263	66	5,329	4,983
9	Utah	3,915	359	4,274	4,135
10	Alabama	3,891	31	3,922	3,884
11	West Virginia	3,477	21	3,498	3,360
12	Michigan	3,097	214	3,311	3,254
13	California	796	1,900	2,696	2,591
14	Pennsylvania	2,088	137	2,225	2,216
15	Kentucky	1,974	25	1,999	1,907
16	Virginia	1,673	0	1,673	1,673
17	Arkansas	1,616	38	1,654	1,650
18	Ohio	772	346	1,118	1,117
19	Montana	820	94	914	906
20	Mississippi	713	33	746	744
21	North Dakota	209	315	524	471
22	New York	315	0	315	315
23	Florida	0	102	102	91
Lower 48 States		163,863	23,165	187,028	178,478
Federal Offshore		17,772	8,090	25,862	25,204
Miscellaneous		80	20	100	99
U.S. Total		166,020	29,541	195,561	186,946

Source: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002*

Table 4.2 Proved Reserves and Gross Production of Natural Gas in Utah, 1960-2002
 Million Cubic Feet

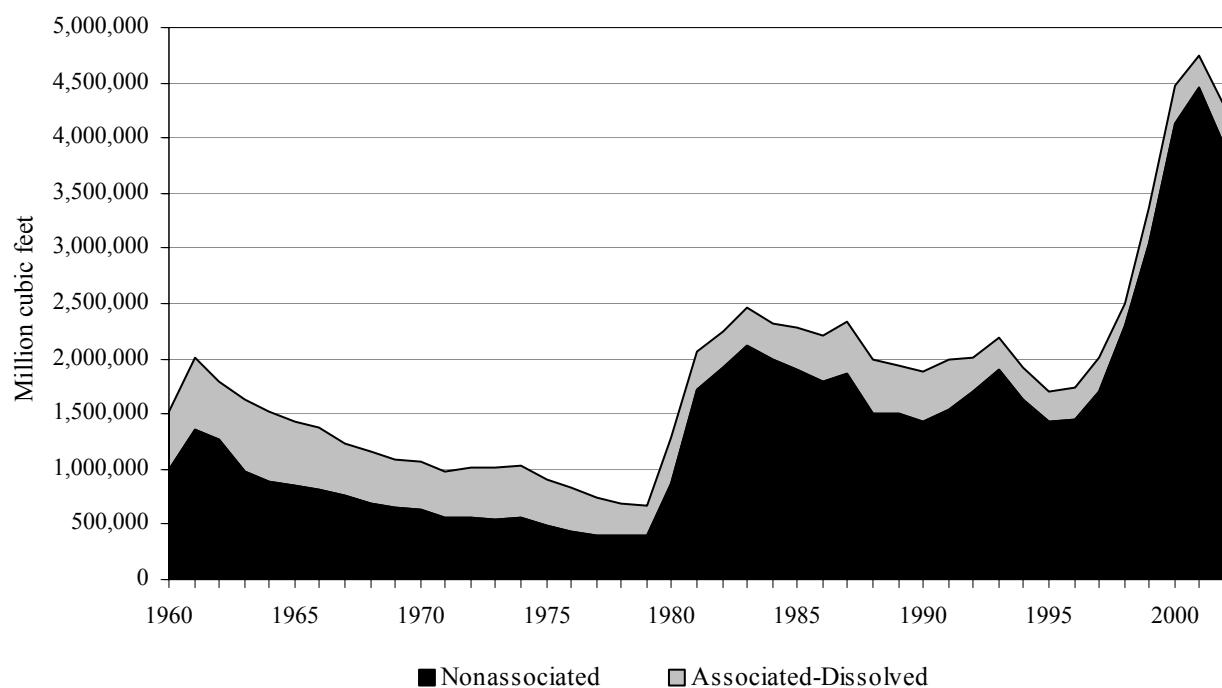
Year	Nonassociated ¹	Associated-Dissolved ¹	Net Withdrawals from Storage ²	Total Reserves	Gross Production ³
1960	1,001,878	515,973	31	1,517,882	62,200
1961	1,361,119	657,515	459	2,019,093	70,000
1962	1,261,666	524,160	39	1,785,865	89,600
1963	978,846	658,690	196	1,637,732	93,600
1964	882,146	636,405	67	1,518,618	98,000
1965	851,438	586,322	185	1,437,945	92,100
1966	817,040	554,284	-136	1,371,188	95,777
1967	762,697	462,750	220	1,225,667	78,284
1968	687,701	467,756	29	1,155,486	79,299
1969	644,180	445,276	213	1,089,669	75,167
1970	625,153	438,587	108	1,063,848	73,386
1971	559,592	420,787	155	980,534	74,260
1972	561,711	458,732	215	1,020,658	75,664
1973	541,376	481,697	1,627	1,024,700	78,511
1974	553,738	474,629	682	1,029,049	79,973
1975	493,885	420,266	738	914,889	76,183
1976	442,589	383,763	228	826,580	77,090
1977	404,905	341,639	330	746,874	80,791
1978	392,197	304,360	-266	696,291	80,525
1979	397,233	277,521	227	674,981	76,942
1980	870,000	414,000	1,191	1,285,191	87,766
1981	1,722,000	335,000	197	2,057,197	90,936
1982	1,928,000	325,000	-12,280	2,240,720	100,628
1983	2,112,000	360,000	2,124	2,474,124	96,933
1984	1,984,000	341,000	-3,697	2,321,303	183,062
1985	1,897,000	391,000	-2,067	2,285,933	210,267
1986	1,795,000	410,000	1,854	2,206,854	239,259
1987	1,870,000	471,000	-547	2,340,453	262,084
1988	1,509,000	475,000	-533	1,983,467	278,578
1989	1,498,000	442,000	-1,984	1,938,016	278,321
1990	1,432,000	455,000	5,196	1,892,196	323,028
1991	1,532,000	469,000	-9,976	1,991,024	329,464
1992	1,709,000	309,000	4,482	2,022,482	317,763
1993	1,909,000	289,000	7,271	2,205,271	338,276
1994	1,631,000	286,000	19,587	1,936,587	348,140
1995	1,424,000	277,000	118	1,701,118	308,695
1996	1,446,000	301,000	-12,955	1,734,045	280,439
1997	1,695,000	310,000	-7,571	1,997,429	272,554
1998	2,293,000	209,000	676	2,502,676	297,503
1999	3,050,000	321,000	9,193	3,380,193	277,494
2000	4,125,000	348,000	6,537	4,479,537	281,170
2001	4,450,000	303,000	-12,738	4,740,262	300,990
2002	3,915,000	359,000	-2,187	4,271,813	293,064

Source: ¹EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002*

²EIA, *Natural Gas Annual, 2001; Natural Gas Monthly*

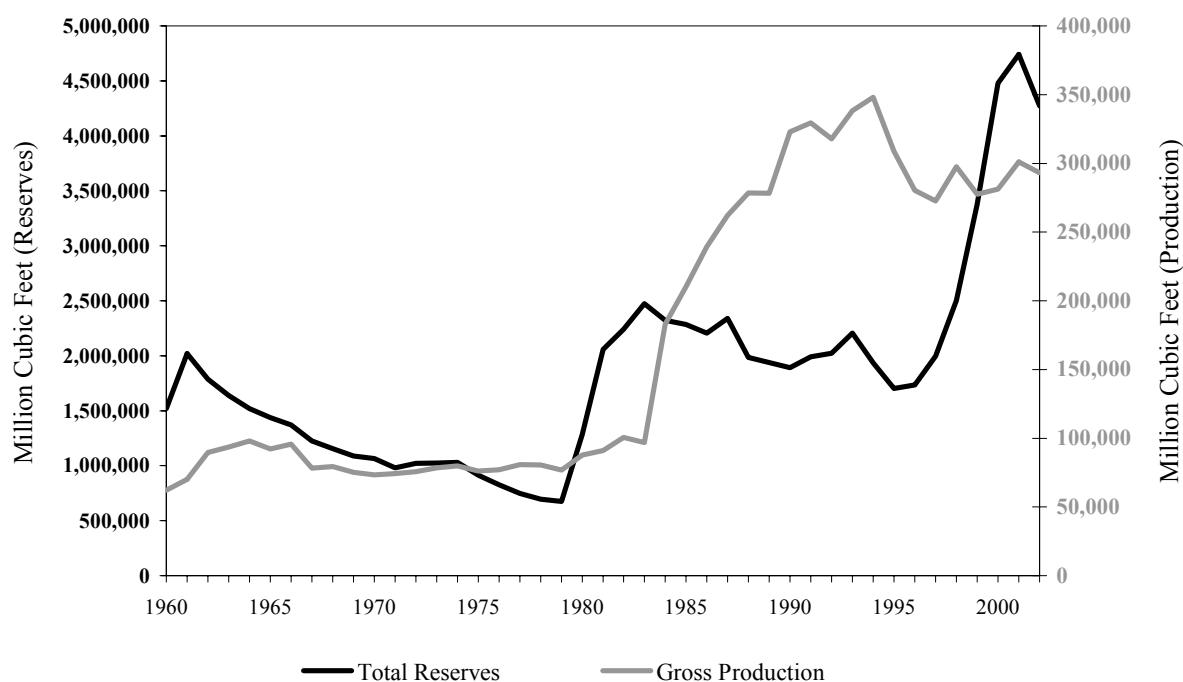
³Bureau of Mines, *Minerals Yearbook, 1960-1975*; Utah Division of Oil, Gas and Mining, 1976-2002

Figure 4.1 Proved Reserves of Natural Gas in Utah, 1960-2002



Source: EIA, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002

Figure 4.2 Proved Reserves and Gross Production of Natural Gas in Utah, 1960-2002



Source: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002*
Bureau of Mines, *Minerals Yearbook, 1960-1975; Utah Division of Oil, Gas and Mining, 1976-2002*

Table 4.3 Utah Natural Gas Drilling Activity by Well Type, 1960-2002
 Number of Wells

Year	New Field Wildcat	Extension	Development	Dry	Total
1960	9	6	9	18	42
1961	7	13	26	43	89
1962	10	11	21	36	78
1963	4	9	18	34	65
1964	1	4	7	18	30
1965	2	6	20	21	49
1966	1	2	6	9	18
1967	1	1	12	15	29
1968	0	4	8	17	29
1969	1	5	5	14	25
1970	3	1	6	8	18
1971	2	1	4	10	17
1972	4	2	8	9	23
1973	6	14	10	15	45
1974	2	2	8	6	18
1975	2	2	6	6	16
1976	2	2	9	12	25
1977	9	1	40	28	78
1978	12	5	88	57	162
1979	9	7	93	58	167
1980	9	19	71	82	181
1981	18	31	119	94	262
1982	15	14	107	69	205
1983	16	10	84	60	170
1984	6	1	73	37	117
1985	1	4	63	27	95
1986	2	3	48	19	72
1987	4	3	17	14	38
1988	6	3	18	13	40
1989	0	4	12	6	22
1990	9	3	11	5	28
1991	1	2	89	22	114
1992	13	9	201	39	262
1993	45	0	62	20	127
1994	5	2	83	18	108
1995	11	12	40	12	75
1996	17	9	25	8	59
1997	8	40	105	13	166
1998	10	41	222	18	291
1999	6	49	180	13	248
2000	13	98	221	17	349
2001	15	134	330	30	509
2002	28	52	271	23	374

Source: Petroleum Information Corporation, *Drilling Success Summary*, 1960-1989
 Utah Division of Oil, Gas and Mining, 1990-2002

Table 4.4a U.S. Natural Gas Production by State, 2002 (available data)
Million Cubic Feet

Rank	State	From Gas Wells	From Oil Wells	Gross Withdraws	Repressuring	Nonhydrocarbon Gases Removed	Vented and Flared	Marketed Production
1	Texas	4,775,005	1,134,435	5,909,440	495,684	137,704	24,245	5,251,807
2	New Mexico	1,389,805	211,648	1,601,453	19,597	0	2,726	1,579,130
3	Oklahoma	1,467,373	155,779	1,623,152	0	--	0	1,623,152
4	Louisiana	1,318,773	242,784	1,561,556	13,130	--	10,657	1,537,769
5	Wyoming	1,564,036	178,697	1,742,733	107,348	185,643	13,068	1,436,673
6	Colorado	526,573	85,721	612,294	6,141	0	770	605,384
7	Kansas	412,997	39,024	452,022	768	--	452	450,801
8	Alaska	194,148	3,284,521	3,478,669	3,006,824	--	7,175	464,669
9	California	91,141	305,172	396,313	31,091	3,136	1,527	360,559
10	Alabama	380,700	5,802	386,502	10,050	19,060	1,331	356,061
11	Utah	260,554	32,510	293,064	2,150	--	956	274,739
12	Michigan	224,112	56,028	280,140	1,974	--	2,803	275,363
13	West Virginia							
14	Arkansas							
15	Pennsylvania							
16	Mississippi	141,800	5,333	147,134	5,962	25,153	3,206	112,812
17	Ohio							
18	Kentucky							
19	Montana	84,614	0	84,614	0	0	332	84,282
20	Virginia							
21	North Dakota	15,141	44,828	59,969	0	139	2,831	56,999
22	New York							
23	Florida	0	3,777	3,777	0	434	0	3,343
24	Tennessee							
25	Nebraska							
26	Oregon	978	0	978	0	0	0	978
27	South Dakota							
28	Indiana							
29	Arizona	300	0	301	0	--	0	301
30	Illinois							
31	Maryland							
32	Nevada							
	U.S. Total	18,312,384	5,817,376	24,129,760	3,699,000	378,070	83,803	19,968,887

Source: EIA, *Natural Gas Annual, 2001; Natural Gas Monthly*
Utah data from Utah Division of Oil, Gas and Mining

Table 4.4b U.S. Natural Gas Production by State, 2001
 Million Cubic Feet

Rank	State	From Gas Wells	From Oil Wells	Gross Withdraws	Repressuring	Nonhydrocarbon Gases Removed	Vented and Flared	Marketed Production
1	Texas	4,928,501	849,016	5,777,516	139,927	248,599	28,842	5,360,148
2	New Mexico	1,484,856	227,534	1,712,390	20,009	0	3,256	1,689,125
3	Oklahoma	1,466,833	148,551	1,615,384	0	--	0	1,615,384
4	Louisiana	1,405,529	126,595	1,532,124	9,091	--	20,208	1,502,825
5	Wyoming	1,467,331	167,656	1,634,987	114,407	149,240	7,462	1,363,879
6	Colorado	605,023	98,492	703,515	6,468	0	811	696,237
7	Kansas	423,672	57,773	481,445	818	--	481	480,145
8	Alaska	193,924	3,233,855	3,427,779	2,948,652	--	7,686	471,440
9	California	94,790	320,048	414,838	35,052	246	1,717	377,824
10	Alabama	385,915	6,066	391,981	12,758	21,374	1,039	356,810
11	Utah	264,809	36,612	300,990	575	--	16,933	283,482
12	Michigan	224,560	56,140	280,700	2,340	--	3,324	275,036
13	West Virginia	250,932	0	250,932	0	--	--	250,932
14	Arkansas	150,972	16,263	167,235	0	--	431	166,804
15	Pennsylvania	157,000	0	157,000	0	--	0	157,000
16	Mississippi	131,608	5,132	136,740	6,194	20,045	2,961	107,541
17	Ohio	97,272	2,835	100,107	0	--	0	100,107
18	Kentucky	81,723	0	81,723	--	--	0	81,723
19	Montana	71,985	9,816	81,802	0	0	404	81,397
20	Virginia	71,543	--	71,543	--	--	0	71,543
21	North Dakota	13,846	44,141	57,987	0	89	3,166	54,732
22	New York	27,632	155	27,787	--	--	0	27,787
23	Florida	0	6,446	6,446	0	736	0	5,710
24	Tennessee	0	2,000	2,000	0	--	0	2,000
25	Nebraska	886	322	1,208	0	--	0	1,208
26	Oregon	1,112	0	1,112	0	3	0	1,110
27	South Dakota	563	10,751	11,313	0	8,170	2,043	1,100
28	Indiana	1,064	0	1,064	--	0	--	1,064
29	Arizona	305	1	307	0	--	0	307
30	Illinois	180	6	185	--	--	0	185
31	Maryland	32	--	32	--	--	--	32
32	Nevada	--	7	7	--	--	--	7
	U.S. Total	19,049,757	5,426,213	24,475,969	3,296,291	463,587	85,678	20,630,412

Source: EIA, *Natural Gas Annual, 2001; Natural Gas Monthly*
 Utah data from Utah Division of Oil, Gas and Mining

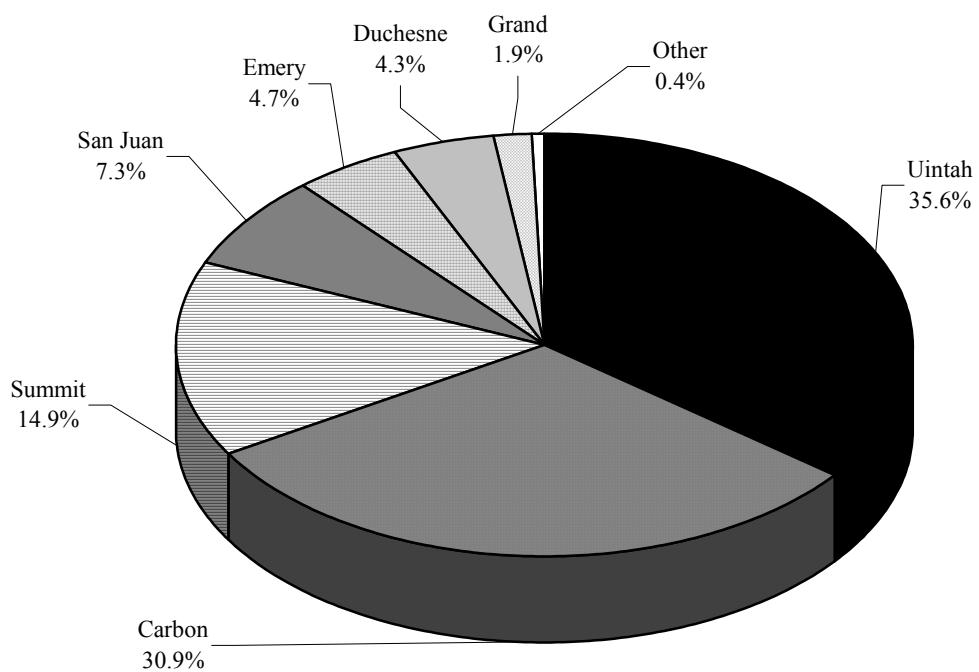
Table 4.5 Natural Gas Gross Production in Utah by County, 1993-2002
Thousand Cubic Feet

2002 Rank	County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Average Annual Percent Change 1993-2002	Cumulative Production Through 2002
1	Uintah	73,518,068	67,275,895	57,146,159	60,051,360	60,599,426	70,621,273	72,154,481	83,053,924	95,317,359	104,231,639	3.9	1,556,695,205
2	Carbon	1,067,921	4,932,277	12,379,993	17,124,314	22,760,216	31,903,361	50,175,219	72,586,077	86,531,650	90,701,081	49.4	470,307,431
3	Summit	215,551,149	225,435,809	189,373,184	149,296,517	134,841,492	141,757,578	104,949,508	76,284,083	67,999,791	43,567,222	-17.8	3,088,539,206
4	San Juan	19,508,219	22,493,251	24,088,983	25,363,081	23,834,821	24,977,524	24,782,925	23,977,443	24,264,486	21,428,813	1.0	1,289,029,470
5	Emery	1,210,380	873,199	703,166	778,051	926,911	1,345,422	2,317,596	4,042,810	7,736,759	13,878,399	27.1	93,128,500
6	Duchesne	17,640,155	16,750,850	17,582,965	19,332,426	20,631,221	19,204,848	15,352,521	13,924,567	13,878,803	12,519,753	-3.8	527,507,628
7	Grand	8,249,625	8,523,892	6,404,169	7,077,875	7,321,799	6,392,678	6,309,417	5,284,844	5,600,283	5,538,588	-4.4	332,474,097
8	Daggett	1,530,491	1,854,631	1,018,292	1,415,327	1,637,463	1,293,202	1,405,755	1,955,920	1,159,278	1,250,965	-2.2	173,378,515
9	Garfield	0	0	0	0	0	2,300	9,123	6,875	9,125	6,050	--	34,248
10	Sanpete	0	0	0	0	425	0	0	0	100	0	--	3,027,708
11	Rich	0	0	0	0	0	0	0	0	0	0	--	5,497,846
12	Washington	0	0	0	0	0	0	0	0	0	0	--	65,552
State Total*		338,276,008	348,139,804	308,694,651	280,438,951	272,553,774	297,503,246	277,494,312	281,170,016	300,990,087	293,064,165	-1.6	7,539,685,406

Source: Utah Division of Oil, Gas and Mining

* "State Total" reflects more up-to-date data than the sum of individual counties and hence, may differ from the sum of the parts.

Figure 4.3 Natural Gas Gross Production in Utah by County, 2002



Source: Utah Division of Oil, Gas and Mining

Table 4.6 Natural Gas Gross Production in Utah by the 40 Largest Fields, 2002
 Thousand Cubic Feet

Rank	Field	County	Year Discovered	Gross Production	Percent of State Production	Cumulative Production	Percent of Total State Cumulative Production
1	Drunkards Wash	Carbon	1991	86,276,583	29.44	363,706,223	4.82
2	Natural Buttes	Uintah	1972	76,429,979	26.08	942,777,697	12.50
3	Anschutz Ranch East	Summit	1980	37,990,691	12.96	2,864,418,559	37.99
4	Lisbon	San Juan	1960	15,851,881	5.41	745,857,280	9.89
5	Wonsits Valley	Uintah	1959	13,928,896	4.75	61,359,150	0.81
6	Helper	Carbon	1993	11,583,216	3.95	34,505,263	0.46
7	Buzzard Bench	Emery	1984	5,088,706	1.74	13,959,371	0.19
8	Anschutz Ranch	Summit	1979	4,974,225	1.70	81,506,485	1.08
9	Monument Butte	Duchesne	1964	4,887,618	1.67	60,203,382	0.80
10	Bluebell	Duchesne/Uintah	1955	3,918,708	1.34	208,267,052	2.76
11	Greater Aneth	San Juan	1956	3,669,963	1.25	375,114,788	4.98
12	Altamont	Duchesne	1970	2,740,134	0.93	239,857,474	3.18
13	Flat Rock	Uintah	1963	2,149,567	0.73	6,002,842	0.08
14	San Arroyo	Grand	1962	2,082,563	0.71	149,455,879	1.98
15	Rock House	Uintah	1960	2,076,430	0.71	29,577,034	0.39
16	Brundage Canyon	Duchesne	1984	1,554,828	0.53	8,202,577	0.11
17	Gypsum Hills	Uintah	1964	1,258,907	0.43	2,647,254	0.04
18	Clay Basin	Daggett	1927	1,250,965	0.43	173,378,515	2.30
19	Red Wash	Uintah	1951	1,095,138	0.37	341,309,555	4.53
20	Bar X	Grand	1948	867,090	0.30	44,620,745	0.59
21	West Willow Creek	Uintah	1990	821,415	0.28	7,821,144	0.10
22	Wildcat	--	--	625,891	0.21	6,275,905	0.08
23	Undesignated	--	--	625,044	0.21	1,994,559	0.03
24	Castlegate	Carbon	1998	570,314	0.19	3,951,890	0.05
25	White River	Uintah	1961	545,563	0.19	4,391,048	0.06
26	Antelope Creek	Duchesne	1983	527,127	0.18	13,605,464	0.18
27	Deadman - Ismay	San Juan	1988	474,224	0.16	11,884,526	0.16
28	Stateline	Grand	1928	443,924	0.15	12,473,511	0.17
29	Kennedy Wash	Uintah	1980	411,172	0.14	1,382,792	0.02
30	Bryson Canyon	Grand	1960	409,653	0.14	22,599,748	0.30
31	Fence Canyon	Grand	1963	386,897	0.13	11,227,846	0.15
32	Oil Springs	Uintah	1963	353,937	0.12	12,357,221	0.16
33	Greater Cisco	Grand	1925	347,322	0.12	24,155,790	0.32
34	Pineview	Summit	1975	347,288	0.12	38,619,309	0.51
35	Pariette Bench	Uintah	1962	345,984	0.12	1,486,837	0.02
36	Walker Hollow	Uintah	1953	328,109	0.11	30,756,135	0.41
37	Westwater	Grand	1957	318,601	0.11	35,924,650	0.48
38	Flat Canyon	Emery	1953	313,552	0.11	9,473,792	0.13
39	Mustang Flat	Summit	1983	293,602	0.10	16,132,292	0.21
40	Main Canyon	Uintah	1979	289,866	0.10	4,276,258	0.06
Subtotal				288,455,573	98.43	7,017,517,842	93.07
State Total				293,064,165		7,539,685,406	

Source: Utah Division of Oil, Gas and Mining

Table 4.7 Natural Gas Gross Production in Utah by the 40 Largest Operators, 2002
 Thousand Cubic Feet

Rank	Operator	Gross Production	Percent of State Production	Cumulative Production*	Percent of Total State Cumulative Production
1	Phillips Petroleum Company	75,538,760	25.78	149,894,840	1.99
2	BP America Production Co.	38,331,062	13.08	38,331,062	0.51
3	El Paso Prod. Oil and Gas Co.	36,963,822	12.61	60,016,228	0.80
4	Shenandoah Energy Inc.	27,218,122	9.29	53,339,529	0.71
5	Anadarko Petroleum Corporation	20,578,797	7.02	49,524,068	0.66
6	EOG Resources Inc.	17,129,231	5.84	52,142,759	0.69
7	Tom Brown Inc.	15,923,248	5.43	60,044,799	0.80
8	Dominion Expl. And Prod. Inc.	13,545,006	4.62	32,222,459	0.43
9	Inland Production Company	4,927,616	1.68	32,654,121	0.43
10	Wexpro Company	4,815,124	1.64	211,341,694	2.80
11	The Anschutz Corporation	4,633,854	1.58	28,084,017	0.37
12	Chevron USA Inc.	3,740,324	1.28	461,944,632	6.13
13	ExxonMobil Oil Corp.	2,808,510	0.96	51,679,321	0.69
14	Devon Energy Prod. Co. LP	2,391,412	0.82	7,533,884	0.10
15	Rosewood Resources Inc.	2,376,280	0.81	21,557,116	0.29
16	Del-Rio Resources Inc.	2,243,487	0.77	6,261,740	0.08
17	Marathon Oil Company	2,233,695	0.76	13,509,168	0.18
18	Lone Mountain Production Co.	1,951,493	0.67	35,260,790	0.47
19	Texaco E&P Inc.	1,820,980	0.62	28,878,123	0.38
20	Williams Prod. RMT Co.	1,546,792	0.53	2,089,718	0.03
21	Crescendo Energy LLC	1,070,850	0.37	2,713,449	0.04
22	Beartooth Oil & Gas Co.	742,356	0.25	15,160,604	0.20
23	Citation Oil & Gas Corporation	668,028	0.23	11,226,828	0.15
24	JM Huber Corporation	570,314	0.19	1,001,866	0.01
25	Thompson, JC	562,121	0.19	39,265,710	0.52
26	Flying J Oil & Gas Inc.	557,859	0.19	5,553,532	0.07
27	Encana Oil and Gas Inc.	536,204	0.18	536,204	0.01
28	Petroglyph Operating Co.	533,763	0.18	7,005,678	0.09
29	Bayless, Robert L Prod. LLC	411,713	0.14	832,117	0.01
30	Bill Barret Corp.	374,051	0.13	374,051	0.00
31	Merit Energy Company	368,435	0.13	5,978,134	0.08
32	AEC Oil and Gas USA Inc.	365,303	0.12	365,303	0.00
33	National Fuel Corporation	346,407	0.12	690,283	0.01
34	Wind River Resources Corp.	339,103	0.12	346,108	0.00
35	Carbon Energy Corp. (USA)	330,446	0.11	330,446	0.00
36	Bonneville Fuels Corp.	321,133	0.11	6,160,615	0.08
37	Samedan Oil Corporation	311,725	0.11	14,505,450	0.19
38	Hancock, Burton W	280,967	0.10	12,938,546	0.17
39	Wildrose Resources Corp.	223,113	0.08	3,389,187	0.04
40	Quinex Energy Corp.	188,981	0.06	3,825,363	0.05
Subtotal		289,820,487	98.89	1,528,509,542	20.27
State Total		293,064,165		7,539,685,406	

Source: Utah Division of Oil, Gas and Mining

*Cumulative production numbers will change as companies merge or consolidate. Refer to Utah Division of Oil, Gas, and Mining for historical cumulative production totals for former companies.

Table 4.8 Natural Gas Processing Plants in Utah, January 1, 2002

Company - Plant Name, County	Gas		Average Liquid Production					
	Capacity	Average	Propane	Normal or Unsplit Butane	Raw NGL Mix	Debut. Nat. Gaso.	Other	Total
	Million Cubic Feet per Day		Thousand Gallons per Day					
Canyon Gas Resources Inc.								
San Arroyo, Uintah	15.0	9.0	--	--	1.7	--	--	1.7
Chevron USA Production Co.								
Red Wash, Uintah	12.0	7.0	--	--	--	--	--	--
Citation Oil and Gas Corp.								
Pineview, Summit	15.0	1.3	--	--	5.9	--	--	5.9
Colorado Interstate Gas Co.								
Natural Buttes, Uinta	180.0	140.0	--	--	30.0	--	--	30.0
Duke Energy Field Services Inc.								
Yellow Creek, Summit	80.0	--	--	19.8	--	9.7	--	29.5
Dynegy Midstream Services Lp								
Bridger Lake, Summit	25.0	10.5	--	--	18.2	--	--	18.2
El Paso Field Services Co.								
Altamont, Duchesne	27.0	11.6	10.2	8.4	--	12.1	7.7	38.4
Bluebell, Duchesne	22.0	9.8	11.4	15.6	--	--	2.1	29.1
Elkhorn Operating Co.								
Aneth, San Juan	12.0	8.0	--	--	43.5	--	--	43.5
Tom Brown Inc.								
Lisbon, San Juan	60.0	50.9	2.8	--	130.4	--	--	133.2
Western Gas Resources Inc.								
Four Corners, San Juan	15.0	3.0	--	--	3.3	--	--	3.3
Total	463.0	251.1	24.4	43.8	233.0	21.8	9.8	332.8

Source: Oil & Gas Journal, June 24, 2002

Table 4.9 Natural Gas Plant Operations in Utah, 2002
Gallons

Product Description	Beginning Stocks	Receipts	Production	Deliveries	Ending Stocks
Ethane	1,109	37,044,195	121,982,364	158,949,133	78,535
Propane	358,269	0	255,384	262,314	531,929
Iso-Butane	67,071	5,236,396	1,875,746	7,174,011	5,202
Butane	305,120	10,182,595	29,815,086	40,083,448	219,353
NGL Mix	343,458	4,686,160	37,872,146	42,704,012	197,753
Gasoline	66,220	4,224,735	14,150,596	18,301,933	131,270
Condensate	43,988	192,011	1,863,893	2,018,004	81,888
Other	19,110	22,343,770	64,958,104	87,128,214	12,180
Total	1,204,345	83,909,862	272,773,319	356,621,069	1,258,110

Source: Utah Division of Oil, Gas and Mining

Table 4.10 Gross Withdrawal, Marketed Production, and Dry Production of Natural Gas in Utah, 1960-2002

Year	Number of Producing Gas Wells	Gross Withdrawals	Withdrawals From Gas Wells	Withdrawals From Oil Wells	Repressuring	Non-hydrocarbon Gases Removed	Vented/Flared	Marketed Production (Wet)	Extraction Loss	Dry Production
Million Cubic Feet										
1960	35	62,200	15,500	46,700	5,826	na	5,334	51,040	3,902	47,138
1961	135	70,000	17,500	52,500	10,233	na	2,592	57,175	5,652	51,523
1962	121	89,600	25,500	64,100	11,972	na	3,500	74,128	7,367	66,761
1963	135	93,600	26,600	67,000	13,771	na	2,707	77,122	7,499	69,623
1964	135	98,000	45,700	52,300	16,655	na	1,670	79,675	10,163	69,512
1965	148	92,100	45,200	46,900	19,794	na	690	71,616	6,346	65,270
1966	156	95,777	45,225	49,785	25,486	na	158	70,133	3,536	66,597
1967	168	78,284	21,685	56,599	26,319	na	3,000	48,965	2,633	46,332
1968	165	79,299	20,443	58,856	30,242	na	2,906	46,151	3,266	42,885
1969	171	75,167	21,510	53,657	25,632	na	2,802	46,733	3,412	43,321
1970	173	73,386	21,609	51,777	27,753	na	2,852	42,781	1,493	41,288
1971	178	74,260	26,571	47,689	28,916	na	2,926	42,418	3,822	38,596
1972	200	75,664	25,783	49,881	30,684	na	5,506	39,474	3,382	36,092
1973	158	78,511	22,849	55,662	28,132	na	7,664	42,715	3,489	39,226
1974	114	79,973	21,433	58,540	24,192	na	5,259	50,522	3,958	46,564
1975	271	77,607	19,001	58,606	20,447	na	1,806	55,354	3,659	51,695
1976	170	77,090	18,927	59,719	20,182	na	1,048	55,860	4,032	51,828
1977	170	80,791	21,040	61,559	21,212	na	691	58,888	4,524	54,364
1978	171	80,525	21,325	58,902	21,342	na	469	58,714	3,570	55,144
1979	182	76,942	27,064	51,610	19,509	na	560	56,873	3,950	52,923
1980	200	87,766	na	na	37,825	na	2,084	47,857	4,075	43,782
1981	226	90,936	na	na	30,254	na	1,817	58,865	5,219	53,646
1982	282	100,628	na	na	43,260	na	1,000	56,368	3,930	52,438
1983	322	96,933	na	na	40,922	na	1,311	54,700	4,180	50,520
1984	700	183,062	na	na	107,469	na	2,439	73,154	4,259	68,895
1985	755	210,267	na	na	127,157	na	2,740	80,370	3,874	76,496
1986	594	239,259	na	na	144,693	na	3,682	90,884	10,139	80,745
1987	645	262,084	188,486	73,425	173,181	na	1,572	87,331	12,396	74,935
1988	665	278,578	174,421	103,489	174,772	na	1,766	102,040	21,237	80,803
1989	834	278,321	201,723	76,358	156,831	na	1,161	120,329	18,302	102,027
1990	822	323,028	238,062	81,570	172,419	na	1,338	149,271	17,579	131,692
1991	913	329,464	238,133	85,527	177,218	na	1,625	150,621	14,392	136,229
1992	1006	317,763	229,494	84,781	141,698	na	1,284	174,781	11,851	162,930
1993	1061	338,276	264,481	71,702	108,629	na	2,153	227,494	13,300	214,194
1994	1303	348,140	304,347	42,672	72,798	na	3,363	271,979	13,780	258,199
1995	1127	308,694	262,400	40,833	26,874	0	35,069	246,751	13,679	233,072
1996	1339	280,439	233,594	47,614	2,950	0	27,277	250,212	10,970	239,242
1997	1475	272,554	231,368	43,552	842	0	16,790	254,922	17,872	237,050
1998	1643	297,503	253,761	43,504	513	0	19,365	277,625	11,801	265,824
1999	1978	277,494	238,947	38,020	519	0	13,835	263,140	11,407	251,733
2000	4178	281,170	244,826	36,290	563	0	11,269	269,338	12,795	256,543
2001	4601	300,990	264,809	36,612	575	0	16,933	283,482	11,379	272,103
2002	na	293,064	260,554	32,510	2,150	15,219	956	274,739	10,881	263,858

Source: Bureau of Mines, Minerals Yearbook, for 1960-1976 data

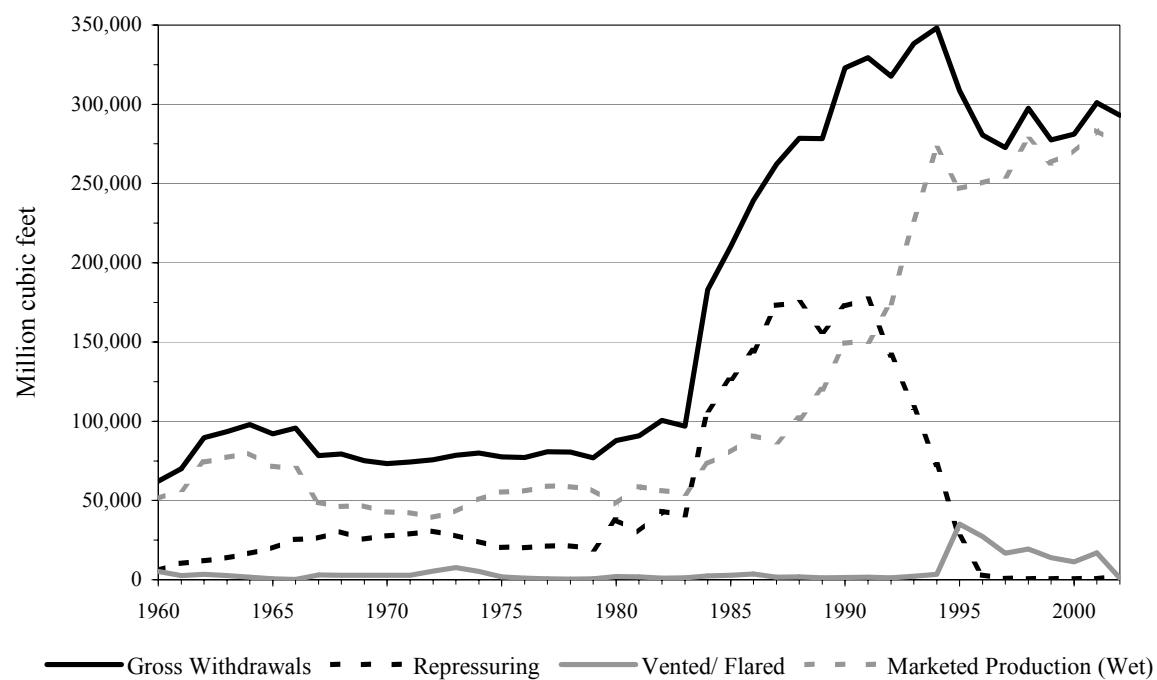
EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1967-1994*

"Gross Withdrawals" - Utah Division of Oil, Gas and Mining, 1976-2002

All data from 1995-2002 is from EIA Form-895

Note: Newly updated "gross withdraw" values will effect marketed production values, hence marketed production and dry production may not match EIA data.

Figure 4.4 Gross Withdrawal and Marketed Production of Natural Gas in Utah, 1960-2002



Source: Bureau of Mines, Minerals Yearbook, for 1960-1976 data
 EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1967-1994*
 "Gross Withdraws" - Utah Division of Oil, Gas and Mining, 1976-2002
 All data from 1995-2002 is from EIA Form-895

Table 4.11 Natural Gas Marketed Production in Utah by Landownership, 1960-2002
Thousand Cubic Feet

Year	Federal ¹	Native American ¹	Fee and State	Total Marketed Production ²
1960	14,801,889	19,434,002	16,804,109	51,040,000
1961	17,131,181	20,705,160	19,338,659	57,175,000
1962	18,686,049	23,018,436	32,423,515	74,128,000
1963	28,711,922	32,067,157	16,342,921	77,122,000
1964	27,059,195	15,553,469	37,062,336	79,675,000
1965	30,520,732	10,446,838	30,648,430	71,616,000
1966	28,240,307	9,325,583	32,567,110	70,133,000
1967	27,212,461	7,565,212	14,187,327	48,965,000
1968	26,615,574	6,747,710	12,787,716	46,151,000
1969	25,022,196	5,523,740	16,187,064	46,733,000
1970	24,839,430	4,013,767	13,927,803	42,781,000
1971	27,460,451	4,891,504	10,066,045	42,418,000
1972	21,167,915	3,326,854	14,979,231	39,474,000
1973	22,157,745	3,755,722	16,801,533	42,715,000
1974	30,134,520	4,681,792	15,705,688	50,522,000
1975	5,857,995	6,646,026	42,849,979	55,354,000
1976	15,402,252	7,537,848	32,919,900	55,860,000
1977	18,532,951	8,786,743	31,568,306	58,888,000
1978	24,959,995	8,734,473	25,019,532	58,714,000
1979	22,899,331	8,117,324	25,856,345	56,873,000
1980	27,250,585	3,729,220	16,877,195	47,857,000
1981	29,823,600	7,847,505	21,193,895	58,865,000
1982	23,559,496	9,435,261	23,373,243	56,368,000
1983	20,707,105	6,753,000	27,239,895	54,700,000
1984	41,273,136	6,392,827	25,488,037	73,154,000
1985	34,859,573	9,983,743	35,526,684	80,370,000
1986	32,554,777	6,896,952	51,432,271	90,884,000
1987	28,449,356	6,953,376	51,928,268	87,331,000
1988	28,646,059	4,828,629	68,565,312	102,040,000
1989	34,513,187	6,419,454	79,396,359	120,329,000
1990	37,154,823	4,820,609	107,295,568	149,271,000
1991	41,016,501	6,401,441	103,203,058	150,621,000
1992	45,171,763	8,863,289	120,745,948	174,781,000
1993	66,915,164	8,292,811	152,286,025	227,494,000
1994	67,266,594	7,701,682	197,010,724	271,979,000
1995	51,547,073	5,989,236	189,214,691	246,751,000
1996	59,903,175	8,823,728	181,485,097	250,212,000
1997	61,060,581	6,937,063	186,924,356	254,922,000
1998	67,226,125	6,278,520	204,120,355	277,625,000
1999	97,838,536	6,851,743	158,449,721	263,140,000
2000	80,623,705	9,823,440	178,890,855	269,338,000
2001	91,938,842	10,108,464	181,434,694	283,482,000
2002*	74,179,530	8,242,170	189,569,910	274,739,000

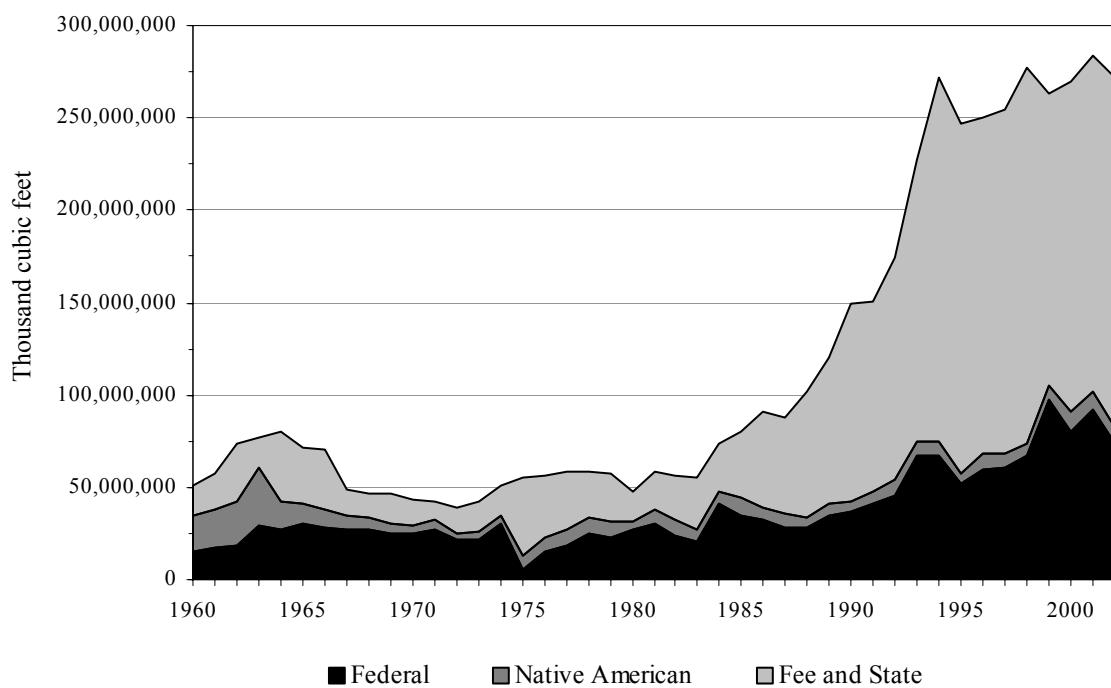
Source: ¹Minerals Management Services, *Mineral Revenues*

²EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1967-1994*

²EIA Form-895, 1995-2002

*UEO estimations

Figure 4.5 Natural Gas Marketed Production by Landownership, 1960-2002



Source: Minerals Management Services, *Mineral Revenues*

Table 4.12 U.S. Stripper Gas Well Production by State, January 1, 2003

Rank (by # of wells)	State	Number of Stripper Gas Wells	Production from Stripper Gas Wells	Gas Wells Plugged and Abandoned	Average Daily Production per Well	Total 2002 Gas Production (Gross Withdraws)	Percent Production from Stripper Gas Wells
			Thousand cf		Thousand cf	Million cf	
1	Pennsylvania	40,830	131,800,000	148	8.8	157,800	83.5
2	West Virginia	37,528	208,775,000	200	15.2	210,500	99.2
3	Ohio	33,345	75,993,000	398	6.2	97,154	78.2
4	Texas	32,200	258,983,600	1,351	22.0	5,909,440	4.4
5	Oklahoma	17,676	153,207,218	365	23.7	1,623,152	9.4
6	Kentucky	16,010	78,444,980	52	13.4	88,259	88.9
7	Wyoming	11,817	56,002,994	101	13.0	1,742,733	3.2
8	Kansas	10,437	124,877,543	298	32.8	452,022	27.6
9	Louisiana	9,595	40,835,950	396	11.7	1,561,556	2.6
10	New Mexico	9,232	81,059,390	172	24.1	1,601,453	5.1
11	Colorado	6,701	60,945,434	33	24.9	612,294	10.0
12	New York	5,442	10,637,283	41	5.4	36,217	29.4
13	Michigan	4,100	55,623,429	65	37.2	280,140	19.9
14	Montana	3,533	25,286,348	59	19.6	84,614	29.9
15	Arkansas	1,719	15,574,407	24	24.8	148,463	10.5
16	Alabama	1,696	18,139,406	16	29.3	386,502	4.7
17	Indiana	1,545	1,309,120	2	2.3	1,309	100.0
18	Utah	929	9,359,853	6	27.6	293,064	3.2
19	California	446	3,506,947	69	21.5	396,313	0.9
20	Tennessee	401	1,586,127	15	10.8	2,051	77.3
21	Mississippi	260	2,718,961	35	28.7	147,134	1.8
22	Illinois	172	184,860	5	2.9	248	74.5
23	Virginia	127	1,807,834	9	39.0	76,914	2.4
24	Nebraska	99	750,809	8	20.8	856	87.7
25	South Dakota	56	396,482	0	19.4	531	74.7
26	North Dakota	55	449,971	2	22.4	59,969	0.8
27	Maryland	6	13,446	0	6.1	13	100.0
28	Arizona	4	3,387	0	2.3	301	1.1
	Totals	245,961	1,418,273,779	3,870	18.43	24,129,760*	5.9

Source: Interstate Oil and Gas Compact Commission, *Marginal Oil and Gas: Fuel for Economic Growth, 2003*

*Total from all gas producing states, not just ones with stripper wells

Table 4.13 Stripper Gas Well Production in Utah, 1993-2002

Year	Number of Stripper Wells	Production from Stripper Wells	Total Production	Percent Gas Production from Stripper Wells
			Thousand cf	
1993	188	1,930,080	338,276,008	0.57
1994	230	1,860,451	348,139,804	0.53
1995	375	1,837,029	308,694,651	0.60
1996	331	3,234,699	280,438,951	1.15
1997	415	3,965,497	272,553,774	1.45
1998	484	4,373,542	297,503,246	1.47
1999	601	5,848,384	277,494,312	2.11
2000	626	6,016,921	281,170,016	2.14
2001	751	7,445,472	300,990,087	2.47
2002	929	9,359,853	293,063,928	3.19
Average				1.57

Source: Interstate Oil and Gas Compact Commission, *Marginal Oil and Gas: Fuel for Economic Growth, 2003* and previous issues

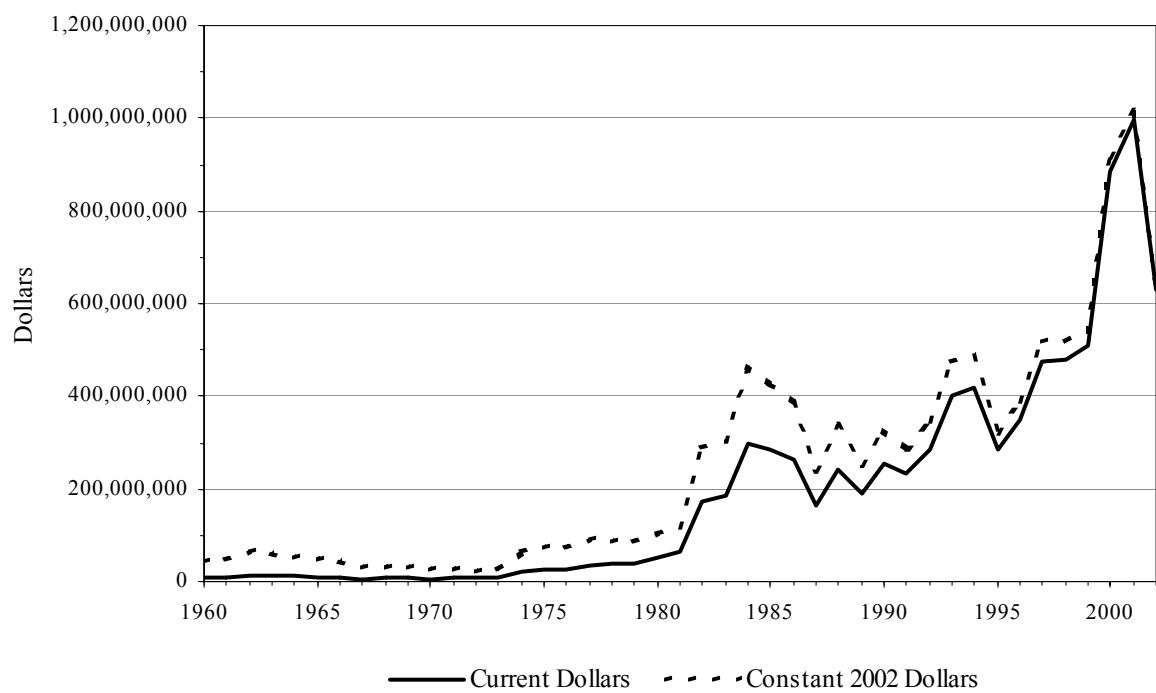
Table 4.14 Natural Gas Wellhead Price and Value of Marketed Production in Utah, 1960-2002

Year	Marketed Production	Wellhead Price		Value of Marketed Production		
		Thousand Cubic Feet	Dollars per Thousand Cubic Feet (Current Dollars)	Dollars per Thousand Cubic Feet (Constant 2002 Dollars)	Current Dollars	Constant 2002 Dollars
1960	51,040,000		0.17	0.85	8,676,800	43,559,960
1961	57,175,000		0.16	0.79	9,148,000	45,413,868
1962	74,128,000		0.18	0.88	13,343,040	65,365,640
1963	77,122,000		0.16	0.77	12,339,520	59,766,197
1964	79,675,000		0.14	0.67	11,154,500	53,239,559
1965	71,616,000		0.14	0.66	10,026,240	46,969,013
1966	70,133,000		0.13	0.59	9,117,290	41,523,553
1967	48,965,000		0.13	0.57	6,365,450	28,128,169
1968	46,151,000		0.16	0.68	7,384,160	31,277,393
1969	46,733,000		0.15	0.61	7,009,950	28,304,039
1970	42,781,000		0.15	0.58	6,417,150	24,599,811
1971	42,418,000		0.17	0.62	7,211,060	26,320,842
1972	39,474,000		0.17	0.60	6,710,580	23,493,357
1973	42,715,000		0.19	0.63	8,115,850	26,907,907
1974	50,522,000		0.41	1.25	20,714,020	63,013,158
1975	55,354,000		0.48	1.34	26,569,920	73,941,771
1976	55,860,000		0.50	1.32	27,930,000	73,555,603
1977	58,888,000		0.61	1.51	35,921,680	88,886,609
1978	58,714,000		0.64	1.48	37,576,960	86,793,974
1979	56,873,000		0.72	1.54	40,948,560	87,304,681
1980	47,857,000		1.12	2.19	53,599,840	104,681,314
1981	58,865,000		1.10	1.96	64,751,500	115,653,633
1982	56,368,000		3.06	5.15	172,486,080	290,036,971
1983	54,700,000		3.40	5.50	185,980,000	300,786,469
1984	73,154,000		4.08	6.36	298,468,320	465,416,725
1985	80,370,000		3.52	5.32	282,902,400	427,674,411
1986	90,884,000		2.90	4.29	263,563,600	389,868,345
1987	87,331,000		1.88	2.70	164,182,280	235,755,427
1988	102,040,000		2.39	3.32	243,875,600	338,707,665
1989	120,329,000		1.58	2.11	190,119,820	254,345,478
1990	149,271,000		1.70	2.19	253,760,700	326,770,801
1991	150,621,000		1.54	1.91	231,956,340	288,199,155
1992	174,781,000		1.63	1.98	284,893,030	345,569,289
1993	227,494,000		1.77	2.10	402,664,380	476,946,432
1994	271,979,000		1.54	1.79	418,847,660	485,987,182
1995	246,751,000		1.15	1.31	283,763,650	322,235,174
1996	250,212,000		1.39	1.55	347,794,680	387,443,274
1997	254,922,000		1.86	2.03	474,154,920	518,105,523
1998	277,625,000		1.73	1.87	480,291,250	518,453,927
1999	263,140,000		1.93	2.05	507,860,200	540,617,547
2000	269,338,000		3.28	3.41	883,428,640	919,412,841
2001	283,482,000		3.52	3.59	997,856,640	1,016,377,706
2002	274,739,000		2.30	2.30	631,899,700	631,899,700

Source: Bureau of Mines, *Minerals Yearbook*, 1960-1976
 EIA, *Natural Gas Annual*, 2001; *Natural Gas Monthly*, 1977-2002

Note: 2002 wellhead price was estimated

Figure 4.6 Value of Natural Gas in Utah, 1960-2002



Source: Bureau of Mines, *Minerals Yearbook*, 1960-1976
EIA, *Natural Gas Annual*, 2001; *Natural Gas Monthly*, 1977-2002

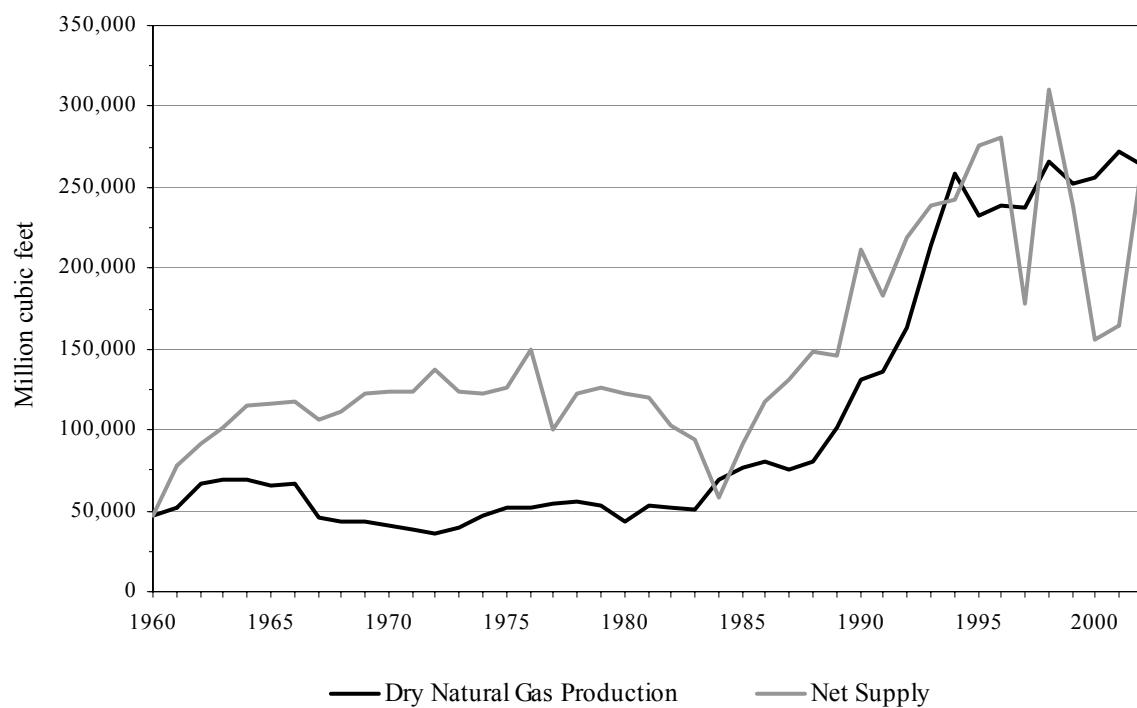
Table 4.15 Natural Gas Supply and Disposition in Utah, 1960-2002
 Million Cubic Feet

Year	Dry Natural Gas Production	Interstate Movement		Underground Storage		Net Supply
		Receipts	Deliveries	Injection	Withdrawal	
1960	47,138	na	na	44	13	47,107
1961	51,523	61,979	35,083	918	459	77,960
1962	66,761	61,112	36,569	733	694	91,265
1963	69,623	62,489	30,942	1,284	1,088	100,974
1964	69,512	73,232	28,098	641	574	114,579
1965	65,270	72,183	21,517	843	658	115,751
1966	66,597	207,996	157,615	1,018	1,154	117,114
1967	46,332	199,031	138,978	609	389	106,165
1968	42,885	229,148	161,188	640	611	110,816
1969	43,321	220,174	141,310	580	367	121,972
1970	41,288	261,741	179,333	547	439	123,588
1971	38,596	261,708	176,992	883	728	123,157
1972	36,092	236,460	135,143	906	691	137,194
1973	39,226	234,442	147,833	2,320	693	124,208
1974	46,564	238,164	161,740	999	317	122,306
1975	51,695	206,470	131,094	1,340	602	126,333
1976	51,828	220,219	122,503	1,069	1,370	149,845
1977	54,364	166,523	120,468	1,446	1,116	100,089
1978	55,144	168,495	101,036	1,180	1,446	122,869
1979	52,923	144,159	70,397	1,193	966	126,458
1980	43,782	160,420	80,264	2,381	1,190	122,747
1981	53,646	140,716	74,701	11,107	10,910	119,464
1982	52,438	142,268	104,038	12,089	24,369	102,948
1983	50,520	104,760	59,568	19,948	17,824	93,588
1984	68,895	68,944	83,569	17,291	20,988	57,967
1985	76,496	56,766	43,794	20,386	22,453	91,535
1986	80,745	119,557	80,968	9,542	7,688	117,480
1987	74,935	131,513	76,388	14,359	14,905	130,606
1988	80,803	158,711	91,943	19,426	19,959	148,104
1989	102,027	126,786	84,990	16,885	18,869	145,807
1990	131,692	156,942	72,020	27,196	22,000	211,418
1991	136,229	85,735	48,664	32,248	42,224	183,276
1992	162,930	333,653	273,310	31,222	26,740	218,791
1993	214,194	393,269	361,042	34,488	27,216	239,149
1994	258,199	444,646	440,415	42,508	22,921	242,843
1995	233,072	431,245	388,831	32,201	32,084	275,369
1996	239,242	420,103	390,959	32,368	45,323	281,341
1997	237,050	443,318	494,909	42,803	35,231	177,887
1998	265,824	420,012	376,224	23,744	24,420	310,288
1999	251,733	359,246	381,416	37,380	46,573	238,756
2000	256,543	356,690	464,167	40,179	46,716	155,603
2001	272,103	543,761	638,122	47,942	35,204	165,004
2002*	263,858	444,600	436,131	44,398	42,211	270,140

Source: Bureau of Mines, *Minerals Yearbook*, 1960-1976
 EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1977-2002*

*UEO estimations

Figure 4.7 Dry Natural Gas Production and Net Supply in Utah, 1960-2002



Source: Bureau of Mines, *Minerals Yearbook*, 1960-1976
EIA, *Natural Gas Annual*, 2001; *Natural Gas Monthly*, 1977-2002

Table 4.16 Natural Gas Balance of Supply and Consumption in Utah, 1960-2002
Million Cubic Feet

Year	Net Supply ¹	Balance Adjustment	Total Consumption ²
1960	47,107	-22,844	69,951
1961	77,960	1,487	76,473
1962	91,265	6,337	84,928
1963	100,974	5,402	95,572
1964	114,579	7,212	107,367
1965	115,751	7,860	107,891
1966	117,114	13,205	103,909
1967	106,165	1,113	105,052
1968	110,816	950	109,866
1969	121,972	2,092	119,880
1970	123,588	1,651	121,937
1971	123,157	1,754	121,403
1972	137,194	13,101	124,093
1973	124,208	1,102	123,106
1974	122,306	1,291	121,015
1975	126,333	2,173	124,160
1976	149,845	3,640	146,205
1977	100,089	-6,226	106,315
1978	122,869	4,356	118,513
1979	126,458	411	126,047
1980	122,747	7,655	115,092
1981	119,464	17,224	102,240
1982	102,948	-14,758	117,706
1983	93,588	-16,597	110,185
1984	57,967	-57,611	115,578
1985	91,535	-23,582	115,117
1986	117,480	12,305	105,175
1987	130,606	31,619	98,987
1988	148,104	39,151	108,953
1989	145,807	32,270	113,537
1990	211,418	94,770	116,648
1991	183,276	50,510	132,766
1992	218,791	96,141	122,650
1993	239,149	101,105	138,044
1994	242,843	105,770	137,073
1995	275,369	118,545	156,824
1996	281,341	120,970	160,371
1997	177,887	12,634	165,253
1998	310,288	140,512	169,776
1999	238,756	78,864	159,892
2000	155,603	-8,954	164,557
2001	165,004	5,746	159,258
2002*	270,140	111,200	158,940

Source: ¹See Table 4.15

²EIA, *Natural Gas Annual, 2001; Natural Gas Monthly*

*UEO estimations

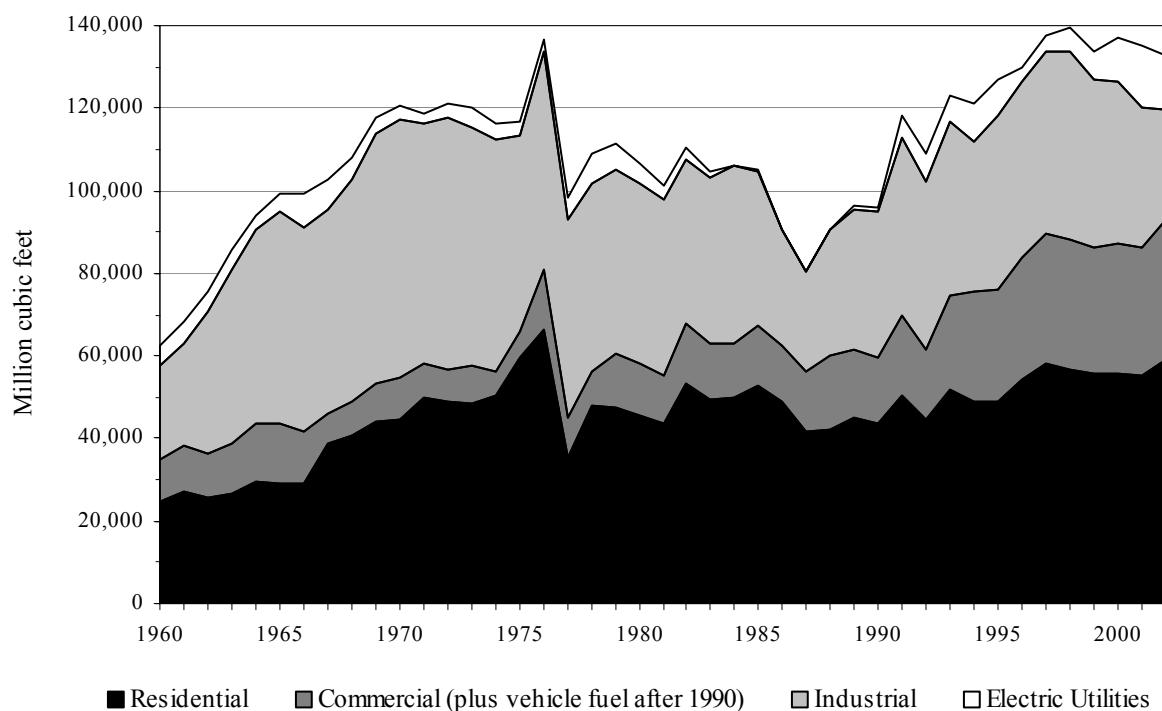
Table 4.17 Consumption of Natural Gas in Utah, 1960-2002
Million Cubic Feet

Year	Lease and Plant Use	Pipeline Fuel	Deliveries to Consumers			Total Deliveries to Consumers	Total Consumption
			Residential	Commercial (plus vehicle fuel after 1990)	Industrial		
1960	7,580	na	24,666	10,143	22,685	4,878	69,951
1961	8,286	na	26,965	11,089	24,800	5,333	76,473
1962	9,388	144	25,645	10,837	34,114	4,801	84,928
1963	9,661	236	26,881	12,083	42,006	4,705	95,572
1964	13,134	267	29,501	14,074	46,794	3,598	93,967
1965	8,167	378	28,870	14,614	51,367	4,495	99,346
1966	4,186	221	29,066	12,457	49,644	8,336	99,502
1967	1,956	210	38,935	6,905	49,656	7,390	102,886
1968	1,503	244	40,779	8,114	53,720	5,506	108,119
1969	2,113	209	43,948	9,443	60,589	3,578	117,557
1970	633	490	44,637	10,180	62,477	3,520	120,814
1971	2,115	537	49,849	8,504	57,998	2,400	118,751
1972	1,978	851	48,855	7,933	60,693	3,783	121,264
1973	2,435	611	48,647	8,997	57,674	4,742	120,060
1974	4,193	590	50,347	5,806	56,070	4,009	116,232
1975	7,240	300	59,736	6,055	47,789	3,040	116,620
1976	9,150	406	66,417	14,681	52,746	2,805	136,649
1977	7,585	439	35,558	9,661	47,728	5,344	98,291
1978	8,325	978	47,783	8,430	45,422	7,575	109,210
1979	14,123	570	47,707	12,761	44,700	6,186	111,354
1980	7,594	851	45,735	12,234	43,545	5,133	106,647
1981	511	721	43,497	11,635	42,779	3,097	101,007
1982	5,965	1,126	53,482	14,306	39,804	3,023	110,615
1983	4,538	1,218	49,645	13,279	40,246	1,259	104,429
1984	8,375	1,015	49,869	13,339	42,709	271	106,188
1985	9,001	1,201	53,043	14,189	37,448	235	104,915
1986	13,289	1,102	49,144	13,146	28,264	230	90,784
1987	17,671	822	41,536	14,811	23,884	263	80,494
1988	16,889	1,362	42,241	17,911	30,354	196	90,702
1989	16,211	1,037	45,168	16,522	33,963	636	96,288
1990	19,719	875	43,424	16,221	35,502	907	96,054
1991	13,738	864	50,572	19,282	43,120	5,190	118,164
1992	12,611	1,284	44,701	16,600	40,878	6,576	108,755
1993	12,526	2,513	51,779	22,620	42,301	6,305	123,005
1994	13,273	2,807	48,922	26,553	36,618	8,900	120,993
1995	27,012	2,831	48,975	26,926	42,373	8,707	126,981
1996	27,119	3,601	54,344	29,666	42,213	3,428	129,651
1997	24,619	2,935	58,108	31,351	44,162	4,078	137,605
1998	27,466	2,788	56,843	31,233	45,501	5,945	139,380
1999	23,810	2,561	55,474	30,707	40,859	6,481	133,304
2000	24,670	2,674	55,626	31,665	39,378	10,544	136,975
2001	20,014	4,161	55,008	31,349	33,585	15,141	134,650
2002*	22,337	4,065	58,895	33,894	26,888	12,861	132,538
							158,940

Source: Bureau of Mines, *Minerals Yearbook*, for 1960-1966 data;
EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1967-2002*

*UEO estimations for lease and plant use, pipeline fuel, and total consumption

Figure 4.8 Consumption of Natural Gas in Utah, 1960-2002



Source: Bureau of Mines, *Minerals Yearbook*, 1960-1966
EIA, *Natural Gas Annual*, 2001; *Natural Gas Monthly*, 1967-2002

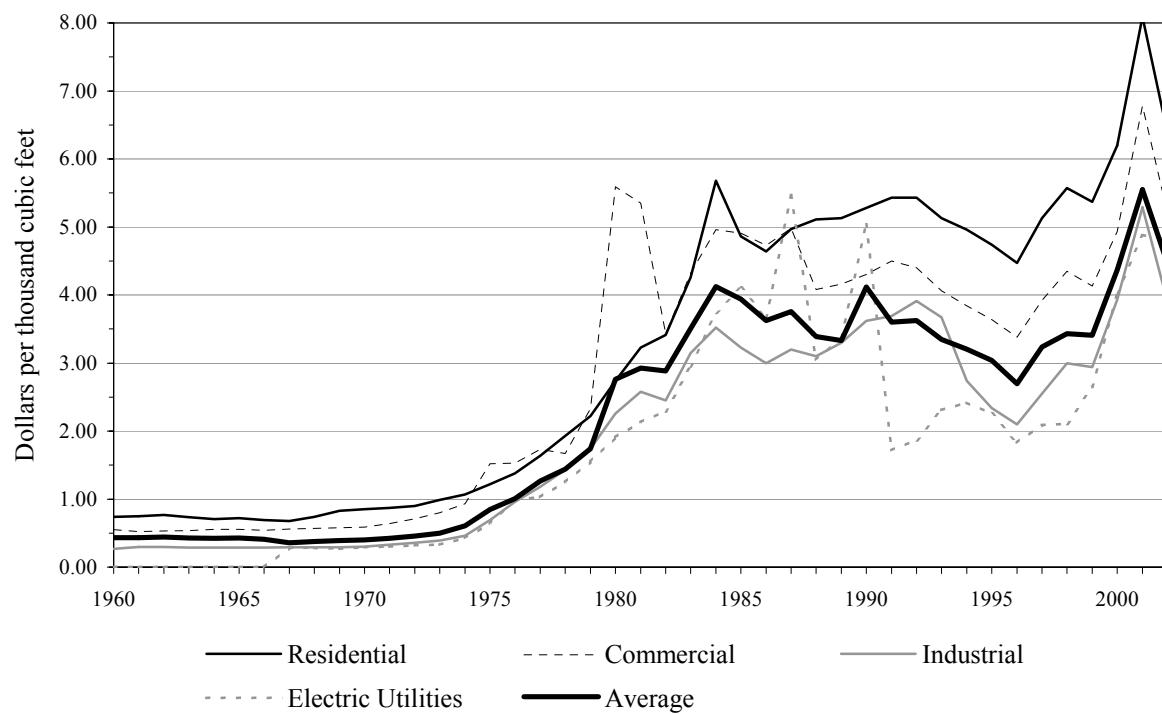
Table 4.18 End-Use Price of Natural Gas Consumed in Utah, 1960-2002
 Dollars per thousand cubic feet

Year	Residential	Commercial	Industrial	Electric Utilities	Vehicle Fuel	City Gate	Wellhead Acquisition (Lease Use)	Pipeline Fuel	Average
1960	0.74	0.55	0.27	na	na	na	0.17	na	0.43
1961	0.75	0.52	0.30	na	na	na	0.16	na	0.43
1962	0.77	0.53	0.30	na	na	na	0.18	na	0.44
1963	0.73	0.54	0.29	na	na	na	0.16	na	0.43
1964	0.71	0.55	0.29	na	na	na	0.14	na	0.42
1965	0.72	0.56	0.29	na	na	na	0.14	na	0.43
1966	0.69	0.54	0.29	na	na	na	0.13	na	0.41
1967	0.68	0.56	0.29	0.28	na	na	0.13	0.21	0.36
1968	0.74	0.57	0.29	0.28	na	na	0.16	0.21	0.37
1969	0.83	0.58	0.29	0.27	na	na	0.15	0.21	0.39
1970	0.85	0.59	0.30	0.29	na	na	0.15	0.21	0.40
1971	0.87	0.64	0.33	0.30	na	na	0.17	0.22	0.42
1972	0.90	0.71	0.36	0.32	na	na	0.17	0.28	0.46
1973	0.99	0.80	0.39	0.33	na	na	0.19	0.29	0.50
1974	1.07	0.93	0.46	0.43	na	na	0.41	0.34	0.61
1975	1.22	1.52	0.69	0.64	na	na	0.48	0.54	0.85
1976	1.38	1.53	0.96	0.99	na	na	0.50	0.67	1.00
1977	1.64	1.73	1.18	1.03	na	na	0.61	1.40	1.27
1978	1.93	1.67	1.43	1.25	na	na	0.64	1.72	1.44
1979	2.22	2.33	1.74	1.55	na	na	0.72	1.88	1.74
1980	2.74	5.59	2.26	1.91	na	na	1.12	2.94	2.76
1981	3.23	5.35	2.58	2.13	na	na	1.10	3.17	2.93
1982	3.41	3.43	2.45	2.29	na	na	3.06	2.67	2.88
1983	4.26	4.32	3.15	2.95	na	na	3.40	2.94	3.50
1984	5.68	4.96	3.52	3.74	na	3.90	4.08	2.99	4.12
1985	4.86	4.91	3.23	4.11	na	3.75	3.52	3.19	3.94
1986	4.64	4.73	3.00	3.66	na	3.49	2.90	2.93	3.62
1987	4.97	4.98	3.20	5.47	na	3.14	1.88	2.66	3.76
1988	5.11	4.08	3.10	3.05	na	3.14	2.39	2.84	3.39
1989	5.13	4.16	3.30	3.38	na	3.59	1.58	2.18	3.33
1990	5.28	4.30	3.62	5.04	6.85	3.91	1.70	2.25	4.12
1991	5.43	4.50	3.69	1.72	5.52	3.89	1.54	2.51	3.60
1992	5.43	4.40	3.91	1.87	5.42	4.09	1.63	2.25	3.63
1993	5.13	4.06	3.67	2.31	5.27	2.63	1.77	1.91	3.34
1994	4.96	3.84	2.74	2.42	4.90	3.31	1.54	1.94	3.21
1995	4.74	3.64	2.34	2.26	4.73	3.88	1.15	1.57	3.04
1996	4.47	3.38	2.10	1.83	4.49	2.25	1.39	1.68	2.70
1997	5.13	3.92	2.55	2.09	5.37	2.79	1.86	2.20	3.24
1998	5.57	4.35	3.00	2.11	5.42	3.22	1.73	2.04	3.43
1999	5.37	4.13	2.94	2.65	5.32	2.98	1.93	1.92	3.41
2000	6.20	4.93	3.93	4.02	5.72	3.68	3.28	3.19	4.37
2001	8.09	6.78	5.29	4.88	7.24	5.61	3.52	2.97	5.55
2002*	6.38	5.21	3.90	4.82	6.46	4.07	2.30	2.57	4.46

Source: Bureau of Mines, *Minerals Yearbook*, for 1960-1966 data
 EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1967-2002*

*UEO estimations for vehicle fuel, wellhead, and pipeline fuel

Figure 4.9 End-Use Price of Natural Gas Consumed in Utah, 1960-2002



Source: Bureau of Mines, *Minerals Yearbook*, 1960-1966
EIA, *Natural Gas Annual*, 2001; *Natural Gas Monthly*, 1967-2002

Table 4.19 Natural Gas Consumers in Utah by Class of Service, 1960-2002

Year	Residential	Commercial	Industrial	Total
1960	151,700	14,500	300	166,500
1961	159,000	15,200	400	174,600
1962	168,400	16,100	400	184,900
1963	178,100	17,000	400	195,500
1964	186,600	17,800	400	204,800
1965	193,000	18,400	500	211,900
1966	199,400	18,900	600	218,900
1967	205,000	19,500	600	225,100
1968	211,100	20,100	600	231,800
1969	216,100	20,600	600	237,300
1970	222,000	21,200	600	243,800
1971	233,100	17,900	700	251,700
1972	242,100	18,600	700	261,400
1973	253,400	19,500	700	273,600
1974	264,800	20,300	700	285,800
1975	275,600	21,200	700	297,500
1976	287,200	22,100	700	310,000
1977	304,900	20,000	700	325,600
1978	321,300	21,000	700	343,000
1979	338,300	22,100	600	361,000
1980	338,300	22,100	600	361,000
1981	362,300	23,600	600	386,500
1982	365,600	27,000	500	393,100
1983	371,700	28,100	500	400,300
1984	386,500	25,200	500	412,200
1985	403,300	29,000	600	432,900
1986	403,200	29,000	600	432,800
1987	414,020	31,329	551	445,900
1988	418,569	32,637	627	451,833
1989	432,377	32,966	550	465,893
1990	453,023	34,697	1,508	489,228
1991	455,649	35,627	631	491,907
1992	467,664	36,145	783	504,592
1993	484,438	37,816	345	522,599
1994	503,583	39,183	252	543,018
1995	523,622	40,101	713	564,436
1996	562,343	40,107	923	603,373
1997	567,786	40,689	3,379	611,854
1998	588,364	42,054	3,597	634,015
1999	609,603	43,861	3,625	657,089
2000	641,111	47,201	3,576	691,888
2001	657,728	47,477	3,535	708,740
2002*	687,480	48,655	3,525	739,660

Source: American Gas Association, 1960-1986
 EIA, *Natural Gas Annual, 2001; Natural Gas Monthly, 1987-2002*

*UEO estimations

Table 4.20 Coalbed Methane Proved Reserves and Production in Utah and the U.S., 1990-2002
 Billion Cubic Feet at 14.73 psia and 60 degrees F

Year	Reserves in Utah	Production in Utah	Reserves in OK, PA, UT, VA, WV, and WY	Production in OK, PA, UT, VA, WV, and WY	Reserves in U.S.	Production in U.S.
1990	na	na	33	1	5,087	196
1991	na	na	167	3	8,163	348
1992	na	na	626	10	10,034	539
1993	na	na	1,065	18	10,184	752
1994	na	na	1,686	34	9,712	851
1995	na	na	1,767	47	10,499	956
1996	na	na	1,852	56	10,566	1,003
1997	na	na	2,144	70	11,462	1,090
1998	na	na	2,707	99	12,179	1,194
1999	na	na	3,263	130	13,229	1,252
2000	1,592	74	*	*	15,708	1,379
2001	1,685	83	*	*	17,531	1,562
2002	1,725	103	*	*	18491	1,614

Source: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002*

*Each state listed individually after 1999

ELECTRICITY

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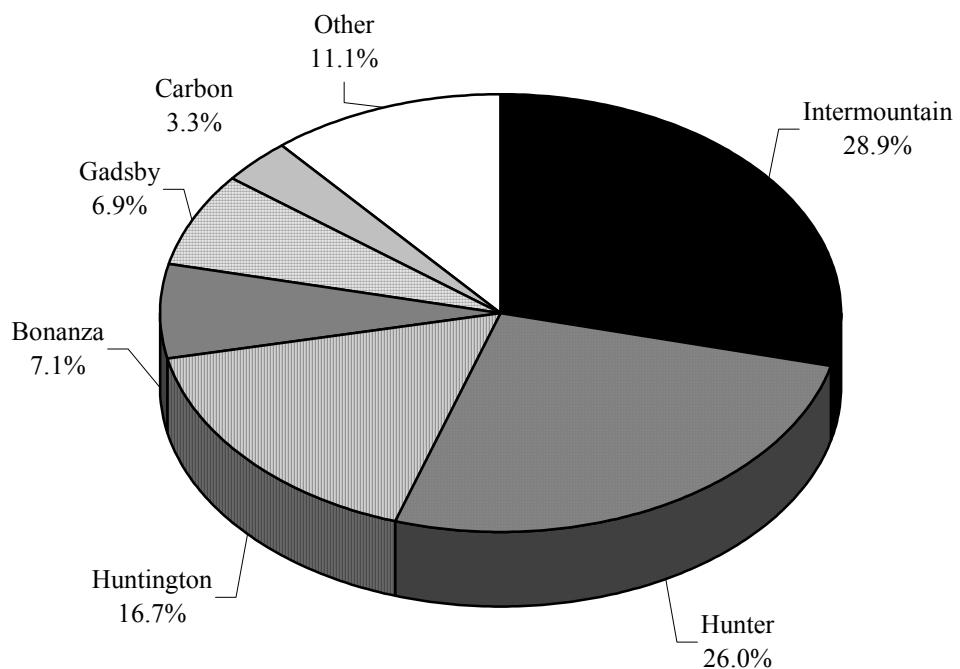
Table 5.1 The 35 Largest Utility Power Plants in Utah Ranked by Generator Nameplate Capacity, 2002

Rank	Company	Plant	Unit	Percent of Capacity	Generator Nameplate Capacity	Net Summer Capability	Net Winter Capability	Unit Type	Primary Energy Source	Alternate Energy Source	Year of Commercial Operation
					Megawatts	Megawatts	Megawatts				
State of Utah Total					5,665.0	5,416.2	5,421.7				
1	City of Los Angeles	Intermountain	1	14.47	820.0	820.0	830.0	ST	BIT		1986
2		Intermountain	2	14.47	820.0	820.0	830.0	ST	BIT		1987
3	PacifiCorp	Huntington	1	8.79	498.0	440.0	440.0	ST	BIT		1977
4		Hunter	3	8.75	495.6	460.0	460.0	ST	BIT		1983
5		Hunter	1	8.62	488.3	430.0	430.0	ST	BIT		1978
6		Hunter	2	8.62	488.3	430.0	430.0	ST	BIT		1980
7		Huntington	2	7.88	446.4	455.0	455.0	ST	BIT		1974
8	Deseret Gen & Tran Coop	Bonanza	1	7.06	400.0	425.0	425.0	ST	BIT	DFO	1986
9	City of Murray	Murray Turbine	3	2.52	142.5	135.0	135.0	GT	NG		2002
10	PacifiCorp	Carbon	2	2.01	113.6	105.0	105.0	ST	BIT		1957
11		Gadsby	3	2.01	113.6	100.0	100.0	ST	NG		1955
12		Carbon	1	1.32	75.0	70.0	70.0	ST	BIT		1954
13		Gadsby	1	1.22	69.0	60.0	60.0	ST	NG		1951
14		Gadsby	2	1.22	69.0	75.0	75.0	ST	NG		1952
15	U S Bureau of Reclamation	Flaming Gorge	1	0.89	50.6	50.6	50.6	HY	WAT		1963
16		Flaming Gorge	2	0.89	50.6	50.6	50.6	HY	WAT		1963
17		Flaming Gorge	3	0.89	50.6	50.6	50.6	HY	WAT		1964
18	PacifiCorp	Gadsby	4	0.83	47.0	43.7	44.2	ST	NG		2002
19		Gadsby	5	0.83	47.0	43.7	44.2	ST	NG		2002
20		Gadsby	6	0.83	47.0	43.7	44.2	ST	NG		2002
21	PacifiCorp	Blundell	1	0.46	26.0	23.0	23.0	ST	GEO		1984
22		Little Mountain	1	0.28	16.0	14.0	14.0	GT	NG	DFO	1971
23		Cutler	1	0.26	15.0	14.5	14.5	HY	WAT		1927
24		Cutler	2	0.26	15.0	14.5	14.5	HY	WAT		1927
25	City of Murray	Murray Turbine	1	0.25	14.0	12.0	14.0	GT	NG		2001
26		Murray Turbine	2	0.25	14.0	12.0	14.0	GT	NG		2001
27	Provo City Corp	Cove Fort	CT1	0.15	8.5	7.0	7.0	ST	GEO		1989
28		Provo	4	0.13	7.5	9.2	9.2	ST	BIT		1949
29	Bountiful City	Bountiful City	IC8	0.12	7.0	7.0	7.0	IC	NG	DFO	1986
30	City of Springville	Whitehead	K1	0.12	7.0	7.0	7.0	IC	NG	DFO	1986
31		Whitehead	K2	0.12	7.0	7.0	7.0	IC	NG	DFO	1986
32		Whitehead	K3	0.12	7.0	6.8	6.9	IC	NG	DFO	2000
33	City of St George	St George Red Rock	1	0.12	7.0	7.0	7.0	IC	DFO		1987
34	City of St George	St George Red Rock	2	0.12	7.0	7.0	7.0	IC	DFO		1987
35	PacifiCorp	Olmstead	4	0.10	5.5	5.5	3.0	HY	WAT		1922

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Codes:	ST	Steam turbine -- boiler	IC	Internal Combustion Engine	NG	Natural Gas
	HY	Hydraulic Turbine	GEO	Steam turbine -- geothermal	WAT	Water
	GT	Combustion (Gas) Turbine	BIT	Bituminous coal	DFO	Distillate Fuel Oil

Figure 5.1 Largest Power Plants in Utah by Generator Nameplate Capacity, 2002



Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.2 Coal-Fired Electric Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
City of Los Angeles	Municipal	Millard	Intermountain	1	820.0	1986
		Millard	Intermountain	2	820.0	1987
PacifiCorp	Investor Owned	Emery	Huntington	1	498.0	1977
		Emery	Huntington	2	446.4	1974
		Emery	Hunter	1	488.3	1978
		Emery	Hunter	2	488.3	1980
		Emery	Hunter	3	495.6	1983
		Carbon	Carbon	1	75.0	1954
		Carbon	Carbon	2	113.6	1957
Deseret Gen & Tran Coop	Cooperative	Uintah	Bonanza	1	400.0	1986
Provo City Corp	Municipal	Utah	Provo	4	7.5	1949
Total Capacity					4,652.7	

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.3 Petroleum-Fired Electric Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
						Megawatts
Bountiful City	Municipal	Davis	Bountiful City	7	0.1	1936
Heber Light & Power Co	Municipal	Wasatch	Heber City	NA7	1.5	1996
		Wasatch	Heber City	NA8	1.6	1991
City of Logan	Municipal	Cache	Logan City	IC2	0.1	1927
		Cache	Logan City	IC3	0.1	1927
		Cache	Logan City	IC4	1.2	1935
		Cache	Logan City	IC5A	1.0	1990
		Cache	Logan City	IC5B	1.0	1990
		Cache	Logan City	IC6	2.2	1947
Provo City Corp	Municipal	Utah	Provo	5	2.5	1980
		Utah	Provo	6	2.5	1980
		Utah	Provo	7	2.5	1980
		Utah	Provo	8	2.5	1980
City of Springville	Municipal	Utah	Whitehead	K5	2.5	2001
		Utah	Whitehead	K6	2.5	2001
		Utah	Whitehead	K7	2.5	2001
City of St George	Municipal	Washington	St George Red Rock	1	7.0	1987
		Washington	St George Red Rock	2	7.0	1987
		Washington	Bloomington Power Pl	1	1.7	1999
		Washington	Bloomington Power Pl	2	1.7	1999
		Washington	Bloomington Power Pl	3	1.7	1999
		Washington	Bloomington Power Pl	4	1.7	1999
		Washington	Bloomington Power Pl	5	1.7	1999
		Washington	Bloomington Power Pl	6	1.7	1999
		Washington	Bloomington Power Pl	7	1.7	1999
Total Capacity						52.2

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.4 Natural Gas-Fired Electric Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
Bountiful City	Municipal	Davis	Bountiful City	1A	5.2	2001
		Davis	Bountiful City	2	1.2	1959
		Davis	Bountiful City	3	1.2	1959
		Davis	Bountiful City	4	1.0	1955
		Davis	Bountiful City	5	1.0	1957
		Davis	Bountiful City	6	2.5	1962
		Davis	Bountiful City	IC8	7.0	1986
Pacificorp	Investor Owned	Salt Lake	Gadsby	1	69.0	1951
		Salt Lake	Gadsby	2	69.0	1952
		Salt Lake	Gadsby	3	113.6	1955
		Salt Lake	Gadsby	4	47.0	2002
		Salt Lake	Gadsby	5	47.0	2002
		Salt Lake	Gadsby	6	47.0	2002
		Weber	Little Mountain	1	16.0	1971
Heber Light & Power Co	Municipal	Wasatch	Heber City	NA1	0.6	1987
		Wasatch	Heber City	NA2	0.6	1987
		Wasatch	Heber City	NA3	0.6	1987
		Wasatch	Heber City	NA4	0.6	1987
		Wasatch	Heber City	NA5	0.7	1990
		Wasatch	Heber City	NA6	0.7	2001
Payson City Corp	Municipal	Utah	Payson	86-1	2.6	1988
		Utah	Payson	86-2	2.6	1988
		Utah	Payson	86-3	2.5	1995
		Utah	Payson	86-4	2.0	1995
City of Murray	Municipal	Salt Lake	Murray Turbine	1	14.0	2001
		Salt Lake	Murray Turbine	2	14.0	2001
		Salt Lake	Murray Turbine	2	142.5	2002
City of Logan	Municipal	Cache	Logan City	1	5.3	2002
		Cache	Logan City	2	5.3	2002
		Cache	Logan City	3	5.3	2002
City of Springville	Municipal	Utah	Whitehead	K1	7.0	1986
		Utah	Whitehead	K2	7.0	1986
		Utah	Whitehead	K3	7.0	2000
Total Capacity						648.6

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.5 Geothermal Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
PacifiCorp	Investor Owned	Beaver	Blundell	1	26.0	1984
Provo City Corp	Municipal	Beaver	Cove Fort	CT1	8.5	1989
		Beaver	Cove Fort	OEC1	0.7	1985
		Beaver	Cove Fort	OEC2	0.7	1985
		Beaver	Cove Fort	OEC3	0.7	1985
		Beaver	Cove Fort	OEC4	0.7	1985
Total Capacity						37.3

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.6 Hydroelectric Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
Beaver City Corp	Municipal	Beaver	Beaver Lower Hydro 1	2	0.3	1914
		Beaver	Beaver Mid Hydro 2	1	0.6	1942
		Beaver	Beaver Upper Hydro 3	3	0.7	1992
Bountiful City	Municipal	Weber	Pine View Dam	NA1	1.8	1991
		Summit	Echo Dam	NA1	1.7	1987
		Summit	Echo Dam	NA2	1.7	1987
		Summit	Echo Dam	3	1.0	1987
Brigham City Corp	Municipal	Box Elder	Brigham City	1	0.6	1921
		Box Elder	Brigham City	2	0.6	1921
		Box Elder	Box Elder	1	0.5	1961
City of Ephraim	Municipal	Sanpete	Hydro Plant No 1	1	0.2	1906
		Sanpete	Hydro Plant No 3	2	0.7	1984
		Sanpete	Hydro Plant No 3	3	2.1	1984
		Sanpete	Hydro Plant No 4	1	0.1	1989
Garkane Energy Coop Inc	Cooperative	Garfield	Boulder	1	1.4	1958
		Garfield	Boulder	2	1.4	1958
		Garfield	Boulder	3	1.4	1961
		Garfield	Lower Boulder	1	0.4	1995
		Garfield	Lower Boulder	2	0.4	1995
Heber Light & Power Co	Municipal	Wasatch	Lake Creek	1	1.5	1981
		Wasatch	Snake Creek	1	0.8	1949
Hyrum City Corp	Municipal	Cache	Hyrum	1	0.5	1931
Levan Town Corp		Juab	Cobble Rock	1	0.1	1988
		Juab	Pigeon Creek	2	0.2	1988
City of Logan	Municipal	Cache	Hydro II	1	3.3	1986
		Cache	Hydro II	2	3.3	1986
		Cache	Hydro III	HY1	0.7	1925
		Cache	Hydro III	HY2	0.7	1925
		Cache	Hydro III	HY3	0.1	1992
City of Manti	Municipal	Sanpete	Manti Lower	HC1	0.6	1989
		Sanpete	Manti Lower	2	0.6	1989
		Sanpete	Manti Upper	1	0.6	1939
		Sanpete	Manti Upper	HC2	1.0	1988
City of Monroe	Municipal	Sevier	Lower	1	0.3	1928
		Sevier	Upper	1	0.3	1940
		Sevier	Monroe Pumping Station	1	0.1	1981
Moon Lake Electric Assn Inc	Cooperative	Duchesne	Uintah	1	0.6	1920
		Duchesne	Uintah	2	0.6	1940
		Duchesne	Yellowstone	1	0.3	1941
		Duchesne	Yellowstone	2	0.3	1941
		Duchesne	Yellowstone	3	0.3	1941
City of Mt Pleasant	Municipal	Sanpete	Lower-Unit	1	0.2	1913
		Sanpete	Upper-Unit	1	0.2	1931
		Sanpete	Unit 3	1	0.2	1993
		Sanpete	Unit 4	1	1.2	1993
City of Murray	Municipal	Salt Lake	Little Cottonwood	1	2.4	1983
		Salt Lake	Little Cottonwood	2	2.4	1983

Table 5.6 (Continued)

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
Nephi City Corp	Municipal	Juab	Bradley	7122	0.2	1986
		Juab	Salt Creek	7120	0.5	1986
PacifiCorp	Investor Owned	Washington	Gunlock	1	0.8	1917
		Washington	Veyo	1	0.5	1920
		Washington	Sand Cove	1	0.8	1920
		Utah	American Fork	1	1.0	1954
		Beaver	Upper Beaver	1	1.3	1907
		Beaver	Upper Beaver	2	1.2	1907
		Box Elder	Cutler	1	15.0	1927
		Box Elder	Cutler	2	15.0	1927
		Sanpete	Fountain Green	1	0.2	1922
		Salt Lake	Granite	1	2.0	1896
		Utah	Olmstead	1	2.4	1904
		Utah	Olmstead	2	2.4	1904
		Utah	Olmstead	4	5.5	1922
		Weber	Pioneer	1	2.5	1914
		Weber	Pioneer	2	2.5	1914
		Wasatch	Snake Creek	1	0.5	1910
		Wasatch	Snake Creek	2	0.5	1910
		Salt Lake	Stairs	3	1.0	1914
		Weber	Weber	1	3.8	1949
Parowan City Corp	Municipal	Iron	Center Creek	1	0.6	1951
		Iron	Red Creek	1	0.6	1955
Spring City Corp	Municipal	Sanpete	Spring City Hydro	1769	0.3	1920
City of Springville	Municipal	Utah	Bartholomew	1	0.5	1948
		Utah	Bartholomew	2	1.0	1988
		Utah	Hobble Creek	1	0.3	1950
		Utah	Spring Creek	3	0.5	1987
		Utah	Upper Bartholomew	1	0.2	1993
City of St George	Municipal	Washington	Gunlock Hydro	1	0.2	1987
		Washington	Gunlock Hydro	2	0.2	1987
		Washington	Pine Valley	1	0.6	1995
Strawberry Water Users Assn	Investor Owned	Utah	Spanish Fork	1	1.7	1983
		Utah	Spanish Fork	2	1.7	1983
		Utah	Spanish Fork	3	0.2	1937
		Utah	Payson	1	0.4	1941
U S Bureau of Reclamation	Federal	Wasatch	Deer Creek	1	2.4	1958
		Wasatch	Deer Creek	2	2.4	1958
		Daggett	Flaming Gorge	1	50.6	1963
		Daggett	Flaming Gorge	2	50.6	1963
		Daggett	Flaming Gorge	3	50.6	1964
Weber Basin Water Conserv Dist	Federal	Morgan	Gateway	1	2.0	1958
		Morgan	Gateway	2	2.0	1958
		Summit	Wanship	1	1.9	1958
		Weber	Causey	1	1.5	1998
		Weber	Causey	2	0.6	1998
Total Capacity					274.2	

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Table 5.6 (Continued)

Data below is from the National Renewable Energy Laboratory and is not recorded by EIA

Operator	Utility Type	County	Plant Name	Unit	Capacity	Initial Year of Operation
Megawatts						
Arizona Micro-Porcupine	--	--	Arizona Micro-Porcupine	0	0.6	--
Bountiful City		Morgan	East Canyon Dam	NA1	2.0	1987
		Morgan	East Canyon Dam	NA2	0.5	1999
BMB Enterprises Inc.	--	Juab	Granite Creek	0	0.4	1994
Douglas George	--	Utah	Deep Creek	0	0.1	1987
City of North Logan	Municipal	Cache	Green Canyon	0	0.5	1985
Perpetual Storage Inc.	--	--	Little Cottonwood Creek	0	5.0	1989
Thayn Lee R and A Leon	--	Emery	Thayn	0	0.4	1987
Whitmore Hydroelectric Co.	--	--	Whitmore Upper	0	0.8	--
Total Capacity					10.3	

Source: National Renewable Energy Laboratory, Renewable Electric Plant Information System (REPiS), 2002

Table 5.7 Non-Utility Electric Power Plants in Utah, 2002

Operator	Utility Type	County	Plant Name	Unit	Primary Energy Source	Capacity	Initial Year of Operation
Megawatts							
Sunnyside Cogeneration Assoc	Non-utility	Carbon	Sunnyside Cogen Assoc	GEN1	WC	58.1	1993
Geneva Steel	Non-utility	Utah	Geneva Steel	GEN1	BIT	50.0	1944
Desert Power LP	Non-utility	Tooele	Desert Power, L.P.	UNT1	NG	46.2	--
		Tooele	Desert Power, L.P.	UNT2	NG	46.2	--
Washington Cnty Wtr Consv Dist	Non-utility	Washington	Quail Creek Hydro Plant #1	1	WAT	2.3	1985
Davis CSWM & Energy RSSD	Non-utility	Davis	Wasatch Energy Systems	1	MSW	1.6	1986
Lagoon Corp	Non-utility	Davis	Lagoon Cogeneration Facility	1	RFO	1.0	1996
		Davis	Lagoon Cogeneration Facility	2	RFO	1.0	1989
		Davis	Lagoon Cogeneration Facility	3	RFO	1.0	1989
Primary Childrens Medical Ctr	Non-utility	Salt Lake	Primary Childrens Medical Ctr	CG01	NG	0.6	1990
		Salt Lake	Primary Childrens Medical Ctr	CG03	NG	0.6	1991
		Salt Lake	Primary Childrens Medical Ctr	CG02	NG	0.6	1990
William R McEwan	Non-utility	Salt Lake	Lone Peak Partners Power Co	1367	NG	0.6	1986
		Salt Lake	Lone Peak Partners Power Co	1391	NG	0.6	1986
		Salt Lake	Lone Peak Partners Power Co	1392	NG	0.6	1986
PacifiCorp Power Marketing Inc		Salt Lake	West Valley Generation Project	U1	NG	43.4	2002
		Salt Lake	West Valley Generation Project	U2	NG	43.4	2002
		Salt Lake	West Valley Generation Project	U3	NG	43.4	2002
		Salt Lake	West Valley Generation Project	U4	NG	43.4	2002
		Salt Lake	West Valley Generation Project	U5	NG	43.4	2002
Total Capacity							428.0

Source: EIA, *Electric Power Annual, 2002*; Form EIA-860

Codes: WC - Waste/Other Coal
BIT - Bituminous Coal

MSW - Municipal Solid Waste
NG - Natural Gas

WAT - Water

RFO - Residual Fuel Oil

Table 5.8 U.S. Total Electricity Net Generation by Energy Source, 2001
(Includes Electric Utilities; Independent Power Producers; and Combined Heat and Power for Commercial, Industrial and Electric Sectors)
Gigawatthours

Rank	State	Coal	Petroleum	Natural Gas	Other Gases ¹	Hydro. ²	Nuclear	Renewables ³	Other ⁴	Total
1	Texas	135,100	3,493	180,380	4,012	1,200	38,163	1,883	1,573	365,804
2	California	2,212	3,131	111,484	2,590	25,192	33,220	21,693	18	199,539
3	Pennsylvania	110,742	4,596	3,069	636	1,035	73,731	2,735	37	196,579
4	Florida	68,174	40,693	43,779	21	148	31,583	5,021	1,784	191,204
5	Illinois	79,597	1,502	4,346	403	144	92,358	702	--	179,051
6	New York	23,472	16,537	38,827	115	21,831	40,395	2,628	--	143,805
7	Ohio	124,226	417	908	318	511	15,464	421	--	142,264
8	Alabama	72,131	398	9,560	189	8,356	30,357	4,428	1	125,421
9	Indiana	116,523	503	2,357	2,502	571	--	130	--	122,586
10	Georgia	74,506	1,149	3,824	--	2,027	33,682	3,201	1	118,391
11	North Carolina	73,054	687	1,535	*	2,596	37,775	1,843	180	117,671
12	Michigan	68,116	935	13,456	3	429	26,711	2,652	*	112,302
13	Tennessee	59,758	400	471	18	6,213	28,576	830	--	96,426
14	Kentucky	90,816	122	614	*	3,856	--	14	--	95,422
15	Arizona	40,061	314	12,873	--	7,900	28,724	39	--	89,911
16	South Carolina	36,815	361	1,178	*	190	49,870	1,479	--	89,893
17	Louisiana	21,969	3,439	41,325	881	732	17,336	2,760	266	88,709
18	Washington	9,081	365	8,862	264	54,732	8,250	1,562	--	83,116
19	West Virginia	80,367	289	187	88	952	--	26	*	81,910
20	Missouri	65,747	644	3,873	--	838	8,384	63	--	79,550
21	Virginia	38,057	5,551	4,295	--	--	25,759	1,547	--	75,210
22	New Jersey	9,322	1,261	16,776	642	--	30,469	1,309	--	59,779
23	Wisconsin	41,227	478	2,233	--	2,056	11,507	1,251	--	58,753
24	Oklahoma	34,618	159	17,959	68	2,216	--	258	--	55,278
25	Mississippi	19,196	5,134	16,906	--	--	9,924	1,492	--	52,652
26	Maryland	28,503	2,885	1,718	431	1,184	13,656	613	--	48,990
27	Minnesota	31,885	626	1,049	--	838	11,789	2,268	--	48,455
28	Arkansas	24,795	886	2,770	--	2,548	14,781	1,458	8	47,246
29	Colorado	35,945	176	9,390	--	1,244	--	67	--	46,822
30	Oregon	4,445	102	10,937	--	28,645	--	1,119	--	45,248
31	Wyoming	42,788	36	593	8	879	--	300	108	44,712
32	Kansas	31,768	617	1,951	--	12	10,347	--	--	44,696
33	Iowa	34,674	102	596	--	845	3,853	601	--	40,671
34	Massachusetts	11,182	8,438	12,130	--	--	5,144	2,072	--	38,965
35	Utah	33,607	58	1,280	259	508	--	195	--	35,908
36	Nevada	17,737	912	11,497	--	2,514	--	1,334	21	34,014
37	New Mexico	28,402	64	4,908	--	237	--	19	--	33,630
38	Connecticut	3,129	5,798	4,173	*	286	15,428	1,765	--	30,579
39	Nebraska	20,239	28	349	--	1,124	8,726	19	--	30,485
40	North Dakota	28,877	48	3	65	1,332	--	8	--	30,332
41	Montana	17,038	465	26	34	6,613	--	56	--	24,232
41	Maine	520	2,179	10,053	1	2,395	--	4,340	148	19,636
43	New Hampshire	3,706	494	106	--	993	8,693	1,090	--	15,082
44	Hawaii	1,602	8,221	--	44	97	--	677	--	10,640
45	Idaho	73	8	1,462	--	7,223	--	515	109	9,391
46	Rhode Island	--	80	7,327	--	3	--	104	--	7,513
47	South Dakota	3,612	52	305	--	3,432	--	1	--	7,401
48	Delaware	3,399	1,702	1,553	154	--	--	--	--	6,808
49	Alaska	565	939	3,938	--	1,346	--	1	--	6,789
50	Vermont	--	32	11	22	884	4,171	361	--	5,481
51	Dist. of Columbia	-	123	--	--	--	--	--	--	123
	U.S. Total	1,903,380	127,629	629,201	13,767	207,548	768,826	78,916	4,254	3,734,912

Source: EIA, *Electric Power Annual, 2001* and previous issues

¹Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels

²Conventional hydroelectric power and hydroelectric pumped storage facility production minus energy used for pumping

³Wood, black liquor, other wood waste, municipal solid waste, landfill gas, sludge waste, tires, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy and wind

⁴Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies

*Values less than 0.5

Table 5.9a U.S. Net Generation at Electric Utilities by Energy Source, 2002
Gigawatthours

Rank	State	Coal	Petroleum	Natural Gas	Hydroelectric	Nuclear	Renewables ¹	Total
1	Florida	52,270	31,241	54,278	184	33,704	118	171,796
2	Texas	90,477	29	39,398	921	19,050	--	149,875
3	Ohio	125,598	341	803	473	10,865	--	138,080
4	Alabama	71,470	130	11,164	8,825	31,857	--	123,446
5	North Carolina	71,225	348	1,902	2,434	39,627	--	115,536
6	Georgia	78,120	192	1,194	2,044	31,108	--	112,657
7	Indiana	109,792	454	1,733	411	--	--	112,390
8	Michigan	65,593	955	2,111	524	31,087	26	100,296
9	South Carolina	36,491	178	3,465	185	53,326	16	93,660
10	Tennessee	58,081	196	40	6,622	27,574	--	92,513
11	Washington	--	5	1,065	76,836	9,048	299	87,253
12	Arizona	37,957	50	5,293	7,419	30,862	33	81,614
13	Missouri	67,207	528	3,292	1,239	8,390	55	80,712
14	Kentucky	75,337	121	693	4,025	--	--	80,176
15	California	--	48	8,723	29,604	34,342	204	72,922
16	West Virginia	62,802	231	3	236	--	22	63,294
17	Virginia	30,862	3,463	2,137	-1,135	27,346	--	62,673
18	Wisconsin	38,555	161	975	2,306	12,449	322	54,768
19	Minnesota	36,048	637	594	734	13,685	411	52,109
20	Louisiana	11,484	62	21,628	--	17,305	--	50,479
21	Oklahoma	33,444	9	15,001	1,810	--	--	50,264
22	Kansas	35,358	503	1,794	--	9,042	--	46,697
23	Mississippi	18,187	30	17,730	--	10,059	--	46,007
24	New York	1,682	7,412	10,672	19,845	3,827	--	43,437
25	Arkansas	22,987	137	1,689	3,559	14,559	--	42,930
26	Wyoming	41,686	39	171	585	--	19	42,499
27	Colorado	35,137	24	5,345	972	--	60	41,537
28	Iowa	34,067	50	421	926	4,574	46	40,083
29	Oregon	3,769	6	1,799	34,051	--	--	39,625
30	Utah	34,081	47	911	476	--	214	35,729
31	Nebraska	19,900	17	407	1,098	10,122	3	31,547
32	North Dakota	29,519	36	*	1,593	--	--	31,147
33	Pennsylvania	15,936	39	1	835	13,595	--	30,406
34	New Mexico	26,901	31	2,766	260	--	--	29,957
35	Nevada	16,416	25	6,229	2,259	--	--	24,930
36	Illinois	20,460	48	337	64	--	--	20,909
37	New Hampshire	3,722	592	96	263	7,600	--	12,273
38	Idaho	--	*	37	8,074	--	--	8,112
39	South Dakota	3,272	4	86	4,354	--	6	7,721
40	Montana	286	1	7	6,437	--	--	6,730
41	Hawaii	--	6,563	--	9	--	2	6,573
41	Alaska	204	751	2,942	1,626	--	1	5,525
43	Vermont	--	8	3	409	2,367	187	2,975
44	New Jersey	1,427	210	96	-146	--	--	1,587
45	Massachusetts	1,089	55	233	133	--	--	1,510
46	Connecticut	--	8	--	32	--	143	184
47	Delaware	--	135	15	--	--	--	149
48	Maryland	--	28	3	--	--	--	31
49	Rhode Island	--	8	--	--	--	--	8
50	Maine	--	--	--	6	--	--	6
51	Dist. of Columbia	--	--	--	--	--	--	--
	U.S. Total	1,518,898	56,185	229,282	233,414	507,370	2,157	2,547,337

Source: EIA, *Electric Power Monthly*, March 2003

¹Includes geothermal, wood, wind, waste, and solar

*Value less than 0.5

Table 5.9b U.S. Net Generation at Electric Utilities by Energy Source, 2001
Gigawatthours

Rank	State	Coal	Petroleum	Natural Gas	Hydroelectric	Nuclear	Renewables ¹	Total
1	Texas	132,297	1,741	91,618	1,195	38,163	--	265,013
2	Florida	63,091	39,075	36,944	148	31,583	125	170,966
3	Ohio	118,767	406	336	511	15,464	--	135,484
4	Alabama	71,484	263	8,285	8,356	30,357	--	118,744
5	Indiana	113,135	372	589	571	--	--	114,666
6	Georgia	73,444	276	1,168	1,995	33,682	--	110,565
7	North Carolina	68,775	413	1,000	1,845	37,775	--	109,807
8	Michigan	66,932	724	2,362	323	26,711	15	97,067
9	Tennessee	58,167	380	5	5,809	28,576	--	92,937
10	South Carolina	36,303	225	194	143	49,870	--	86,735
11	Arizona	39,732	312	9,106	7,900	28,724	34	85,808
12	Kentucky	79,382	120	321	3,856	--	--	83,678
13	Missouri	65,445	638	3,634	838	8,384	52	78,991
14	California	--	317	11,919	24,468	33,220	210	70,133
15	Washington	--	179	4,378	54,517	8,250	358	67,683
16	Virginia	30,657	4,855	2,131	--	25,759	--	62,135
17	New York	2,088	9,177	8,871	17,679	20,753	--	58,569
18	Wisconsin	40,186	170	868	1,888	11,507	340	54,959
19	West Virginia	51,111	257	4	211	--	26	51,609
20	Oklahoma	32,165	146	15,887	2,216	--	--	50,414
21	Louisiana	10,917	1,722	20,402	--	17,336	--	50,378
22	Mississippi	19,196	5,121	13,310	--	9,924	--	47,550
23	Minnesota	31,038	600	372	619	11,789	381	44,798
24	Arkansas	24,678	846	1,875	2,548	14,781	--	44,728
25	Kansas	31,768	616	1,912	--	10,347	--	44,643
26	Wyoming	42,561	34	274	879	--	16	43,764
27	Colorado	35,654	159	4,884	1,222	--	39	41,958
28	Iowa	33,472	95	454	830	3,853	52	38,756
29	Oregon	4,424	93	5,184	28,360	--	--	38,060
30	Utah	33,607	58	1,280	508	--	195	35,648
31	New Mexico	28,402	30	3,541	237	--	--	32,211
32	Nebraska	20,194	25	340	1,124	8,726	3	30,412
33	North Dakota	28,770	34	0	1,332	--	--	30,136
34	Illinois	29,125	99	546	57	--	8	29,835
35	Nevada	17,737	912	6,743	2,505	--	--	27,896
36	Pennsylvania	13,863	22	1	569	13,179	--	27,634
37	New Hampshire	3,706	429	42	225	8,693	--	13,095
38	South Dakota	3,612	52	305	3,432	--	1	7,401
39	Idaho	--	4	--	6,663	--	--	6,667
40	Hawaii	--	6,363	--	18	--	2	6,383
41	Alaska	194	848	3,028	1,346	--	1	5,416
41	Vermont	--	32	11	331	4,171	189	4,734
43	Montana	311	1	10	4,094	--	--	4,416
44	Connecticut	--	11	--	29	2,630	147	2,817
45	Delaware	1,626	209	37	--	--	--	1,872
46	New Jersey	1,439	231	102	--	--	--	1,630
47	Massachusetts	1,097	132	218	120	--	--	1,566
48	Maryland	--	88	0	--	--	--	88
49	Rhode Island	--	11	--	--	--	--	11
50	Maine	--	--	--	5	--	--	5
51	Dist. of Columbia	--	--	--	--	--	--	0
	U.S. Total	1,560,146	78,919	264,434	190,105	534,207	2,152	2,629,962

Source: EIA, *Electric Power Annual, 2001* and previous issues

¹Includes geothermal, wood, wind, waste, and solar

Table 5.10 U.S. Electricity Net Generation by State, 1995-2001

(Includes Electric Utilities; Independent Power Producers; and Combined Heat and Power for Commercial, Industrial and Electric Sectors)
Gigawatthours

2001 Rank	State	1995	1996	1997	1998	1999	2000	2001	Percent Change 1995-2001
1	Texas	317,636	328,949	336,320	355,320	358,945	377,742	365,804	15.2
2	California	181,463	175,263	172,798	189,601	188,319	208,100	199,539	10.0
3	Pennsylvania	185,451	191,873	193,463	191,192	194,528	201,688	196,579	6.0
4	Florida	167,414	167,085	168,247	189,629	187,263	191,816	191,204	14.2
5	Illinois	148,658	147,733	135,141	138,465	163,411	178,496	179,051	20.4
6	New York	133,413	135,732	140,832	144,863	146,281	138,079	143,805	7.8
7	Ohio	139,344	144,437	142,811	147,940	142,330	149,060	142,264	2.1
8	Alabama	105,189	121,473	119,542	119,862	120,658	124,405	125,421	19.2
9	Indiana	109,157	109,902	114,729	117,472	121,765	127,820	122,586	12.3
10	Georgia	107,879	104,320	107,626	115,324	117,339	123,877	118,391	9.7
11	North Carolina	106,295	112,198	115,495	121,379	117,358	122,274	117,671	10.7
12	Michigan	107,445	112,518	106,971	100,477	103,240	104,210	112,302	4.5
13	Tennessee	85,731	92,122	96,814	97,728	93,320	95,839	96,266	12.3
14	Kentucky	86,166	88,447	91,572	90,933	92,682	93,006	95,422	10.7
15	Arizona	69,781	71,655	78,825	82,095	83,893	88,947	89,911	28.8
16	South Carolina	80,914	78,769	80,828	87,247	90,234	93,346	89,893	11.1
17	Louisiana	84,560	77,740	82,822	89,649	89,942	92,866	88,709	4.9
18	Washington	102,198	118,658	122,126	102,159	117,084	108,237	83,116	-18.7
19	West Virginia	80,537	87,244	91,529	92,822	94,693	92,865	81,910	1.7
20	Missouri	65,721	68,123	71,374	75,187	73,816	76,594	79,550	21.0
21	Virginia	62,996	66,895	68,515	72,199	73,898	77,189	73,984	17.4
22	New Jersey	45,099	37,717	41,756	53,858	56,803	58,085	59,655	32.3
23	Wisconsin	53,923	54,418	51,414	56,447	58,539	59,644	58,753	9.0
24	Oklahoma	52,667	51,850	52,864	56,229	54,865	55,572	55,278	5.0
25	Mississippi	28,981	31,277	33,679	34,409	34,845	37,615	52,652	81.7
26	Maryland	46,366	46,275	46,707	50,653	51,686	51,145	48,990	5.7
27	Minnesota	45,171	44,328	43,240	48,018	48,519	51,423	48,455	7.3
28	Arkansas	41,972	46,034	45,194	45,665	46,554	43,876	47,246	12.6
29	Colorado	35,617	37,137	37,643	38,882	39,521	44,167	46,822	31.5
30	Oregon	45,266	51,012	52,413	51,148	56,848	51,790	45,248	0.0
31	Wyoming	40,252	41,472	41,410	45,347	43,632	45,494	44,712	11.1
32	Kansas	38,421	39,942	37,917	41,585	42,070	44,816	44,696	16.3
33	Iowa	34,753	34,689	35,419	38,449	38,801	41,542	40,671	17.0
34	Massachusetts	37,654	37,954	44,965	45,684	40,575	38,698	38,956	3.5
35	Utah	32,836	32,983	34,748	35,946	36,815	36,644	35,907	9.4
36	Nevada	23,964	25,580	27,032	30,614	30,532	35,485	34,014	41.9
37	New Mexico	29,831	30,161	31,462	32,324	32,522	34,022	33,630	12.7
38	Connecticut	31,472	20,211	17,674	19,691	28,597	32,968	30,579	-2.8
39	Nebraska	25,304	27,351	28,449	28,797	30,056	29,110	30,485	20.5
40	North Dakota	29,004	30,908	29,853	30,672	31,417	31,311	30,332	4.6
41	Montana	25,961	26,837	28,587	28,461	31,419	26,452	24,232	-6.7
42	Maine	9,763	14,934	10,333	11,003	12,674	14,048	19,636	101.1
43	New Hampshire	15,434	17,064	15,880	16,089	16,189	15,031	15,082	-2.3
44	Hawaii	10,304	10,628	10,312	10,228	10,404	10,593	10,640	3.3
45	Idaho	11,845	14,090	15,589	13,909	14,437	11,910	9,391	-20.7
46	Rhode Island	4,488	7,720	7,710	7,675	6,377	5,972	7,513	67.4
47	South Dakota	8,812	10,066	12,450	9,089	10,557	9,697	7,401	-16.0
48	Delaware	9,033	8,854	7,223	6,899	6,852	5,987	6,808	-24.6
49	Alaska	6,026	6,129	6,155	5,829	5,802	6,157	6,789	12.7
50	Vermont	5,160	5,350	5,681	4,946	5,704	6,303	5,481	6.2
51	Dist. of Columbia	189	110	71	244	230	144	123	-34.7
	U.S. Total	3,353,487	3,444,188	3,492,172	3,620,295	3,694,810	3,802,124	3,733,521	11.3

Source: EIA, *Electric Power Annual, 2001* and previous issues

Table 5.11 U.S. Net Generation at Electric Utilities by State, 1995-2002
Gigawatthours

2002 Rank	State	1995	1996	1997	1998	1999	2000	2001	2002	Percent Change 1995-2002
1	Florida	147,157	145,140	147,984	169,447	166,914	169,889	170,966	171,796	16.7
2	Texas	261,709	272,283	277,190	293,068	292,458	297,299	265,013	149,875	-42.7
3	Ohio	137,860	142,900	141,249	146,448	140,912	144,358	135,484	138,080	0.2
4	Alabama	99,589	115,093	113,684	113,394	113,909	118,037	118,744	123,446	24.0
5	North Carolina	96,110	102,787	107,371	113,112	109,882	114,433	109,807	115,536	20.2
6	Georgia	102,016	98,729	101,780	108,717	110,537	116,177	110,565	112,657	10.4
7	Indiana	105,189	105,557	110,466	112,772	114,183	119,721	114,666	112,390	6.8
8	Michigan	92,479	95,155	89,565	85,146	87,875	89,572	97,067	100,296	8.5
9	South Carolina	78,440	76,326	78,374	84,397	87,347	90,421	86,735	93,660	19.4
10	Tennessee	82,278	88,647	93,293	94,143	89,683	92,312	92,937	92,513	12.4
11	Washington	95,671	112,606	117,453	97,128	112,072	96,227	67,683	87,253	-8.8
12	Arizona	68,967	70,877	78,060	81,299	83,096	88,150	85,808	81,614	18.3
13	Missouri	65,400	67,827	71,073	74,894	73,505	76,284	78,991	80,712	23.4
14	Kentucky	86,162	88,438	91,558	86,151	81,658	81,350	83,678	80,176	-6.9
15	California	121,881	114,706	112,183	114,926	87,875	85,856	70,133	72,922	-40.2
16	West Virginia	77,322	83,978	88,284	89,605	91,678	89,709	51,609	63,294	-18.1
17	Virginia	52,727	56,533	58,986	63,815	65,071	65,843	62,135	62,673	18.9
18	Wisconsin	51,012	51,651	48,560	52,529	54,704	55,665	54,959	54,768	7.4
19	Minnesota	42,503	41,792	40,303	43,977	44,154	46,616	44,798	52,109	22.6
20	Louisiana	65,555	58,643	61,120	66,107	64,837	57,601	50,378	50,479	-23.0
21	Oklahoma	47,955	47,545	48,380	51,454	50,279	51,403	50,414	50,264	4.8
22	Kansas	38,230	39,875	37,844	41,481	42,003	44,765	44,643	46,697	22.1
23	Mississippi	26,395	28,838	31,228	31,992	32,212	33,896	47,550	46,007	74.3
24	New York	101,161	104,360	108,099	115,840	97,009	73,188	58,569	43,437	-57.1
25	Arkansas	39,527	43,678	42,790	43,199	44,131	41,486	44,728	42,930	8.6
26	Wyoming	39,684	40,852	40,765	44,699	42,951	44,586	43,764	42,499	7.1
27	Colorado	32,674	33,972	34,376	35,471	36,167	40,108	41,958	41,537	27.1
28	Iowa	33,502	33,387	34,064	37,085	37,032	39,634	38,756	40,083	19.6
29	Oregon	44,031	47,884	49,068	46,352	51,698	46,060	38,060	39,625	-10.0
30	Utah	32,101	32,229	33,969	35,160	36,071	35,827	35,648	35,729	11.3
31	Nebraska	25,279	27,323	28,388	28,720	29,981	29,046	30,412	31,547	24.8
32	North Dakota	28,842	30,770	29,720	30,519	31,260	31,123	30,136	31,147	8.0
33	Pennsylvania	168,942	175,022	177,167	173,903	161,596	97,076	27,634	30,406	-82.0
34	New Mexico	29,432	29,364	30,568	31,428	31,654	32,856	32,211	29,957	1.8
35	Nevada	19,997	21,362	22,870	26,553	26,486	29,342	27,896	24,930	24.7
36	Illinois	145,165	144,116	131,138	131,274	149,808	113,566	29,835	20,909	-85.6
37	New Hampshire	13,936	15,419	14,264	14,238	13,876	12,702	13,095	12,273	-11.9
38	Idaho	10,063	12,231	13,512	11,978	12,456	10,114	6,667	8,112	-19.4
39	South Dakota	8,812	10,066	12,450	9,089	10,557	9,697	7,401	7,721	-12.4
40	Montana	25,411	26,039	27,807	27,617	27,597	6,627	4,416	6,730	-73.5
41	Hawaii	6,191	6,420	6,213	6,301	6,452	6,535	6,383	6,573	6.2
42	Alaska	4,847	4,982	5,108	4,590	4,609	4,938	5,416	5,525	14.0
43	Vermont	4,840	5,004	5,323	4,394	4,735	5,307	4,734	2,975	-38.5
44	New Jersey	27,088	19,791	23,761	35,911	38,868	25,254	1,630	1,587	-94.1
45	Massachusetts	26,972	27,759	33,899	26,037	4,360	1,705	1,566	1,510	-94.4
46	Connecticut	26,932	15,774	13,228	15,123	20,484	16,993	2,817	184	-99.3
47	Delaware	8,324	8,122	6,579	6,318	6,239	4,137	1,872	149	-98.2
48	Maryland	44,659	44,381	44,553	48,514	49,324	31,783	88	31	-99.9
49	Rhode Island	653	3,301	3,563	2,061	9	11	11	8	-98.8
50	Maine	2,668	7,800	3,223	3,549	1,189	3	5	6	-99.8
51	Dist. of Columbia	189	110	71	244	230	97	--	--	--
	U.S. Total	2,994,529	3,077,442	3,122,523	3,212,171	3,173,674	3,015,383	2,629,962	2,547,307	-14.9

Source: EIA, *Electric Power Annual*, 2001 and previous issues
EIA, *Electric Power Monthly*, March 2003

Table 5.12 Net Generation of Electricity in Utah by Energy Source, 1960-2002
 (Includes Electric Utilities; Independent Power Producers; and Combined Heat and Power for Commercial, Industrial and Electric Sectors)
 Gigawatthours

Year	Coal	Oil	Natural Gas	Other Gases ¹	Hydroelectric	Geothermal ²	Total
1960	1,130	1,314	290	na	304	0	3,038
1961	1,210	1,236	374	na	231	0	3,051
1962	998	934	433	na	393	0	2,758
1963	923	876	413	na	352	0	2,564
1964	855	824	324	na	765	0	2,768
1965	779	866	392	na	913	0	2,950
1966	1,001	765	700	na	791	0	3,257
1967	909	748	611	na	1,074	0	3,342
1968	931	758	444	na	1,017	0	3,150
1969	806	872	287	na	1,117	0	3,082
1970	948	956	307	na	738	0	2,949
1971	894	905	287	na	981	0	3,067
1972	1,165	657	320	na	1,220	0	3,362
1973	2,007	146	342	na	1,111	0	3,606
1974	2,678	69	312	na	941	0	4,000
1975	4,366	82	283	na	1,074	0	5,805
1976	2,739	32	183	na	1,130	0	4,084
1977	5,533	116	421	na	757	0	6,827
1978	7,238	90	565	na	734	0	8,627
1979	9,408	122	458	na	802	0	10,790
1980	10,870	63	358	na	821	0	12,112
1981	10,869	40	230	na	623	0	11,762
1982	10,635	29	203	na	1,024	0	11,891
1983	10,921	40	69	na	1,394	0	12,424
1984	12,321	30	8	na	1,391	38	13,788
1985	14,229	40	14	na	1,019	109	15,411
1986	15,155	74	6	na	1,413	171	16,819
1987	25,221	92	13	na	893	127	26,346
1988	28,806	59	5	na	593	174	29,637
1989	29,676	48	37	na	562	173	30,496
1990	31,523	52	146	182	508	152	32,563
1991	28,888	51	550	204	627	186	30,506
1992	31,553	34	631	230	602	233	33,050
1993	32,125	37	606	281	860	187	34,096
1994	33,131	33	807	281	750	233	35,235
1995	30,611	36	791	261	969	168	32,836
1996	31,101	47	324	239	1,049	223	32,983
1997	32,544	47	328	281	1,344	204	34,748
1998	33,588	35	528	285	1,315	195	35,946
1999	34,534	31	610	191	1,255	194	36,815
2000	34,491	58	890	258	751	196	36,644
2001	33,607	58	1,280	259	508	195	35,907
2002*	34,081	47	911	260	476	214	35,989

Source: EIA, *Electric Power Annual, 2001* and previous issues

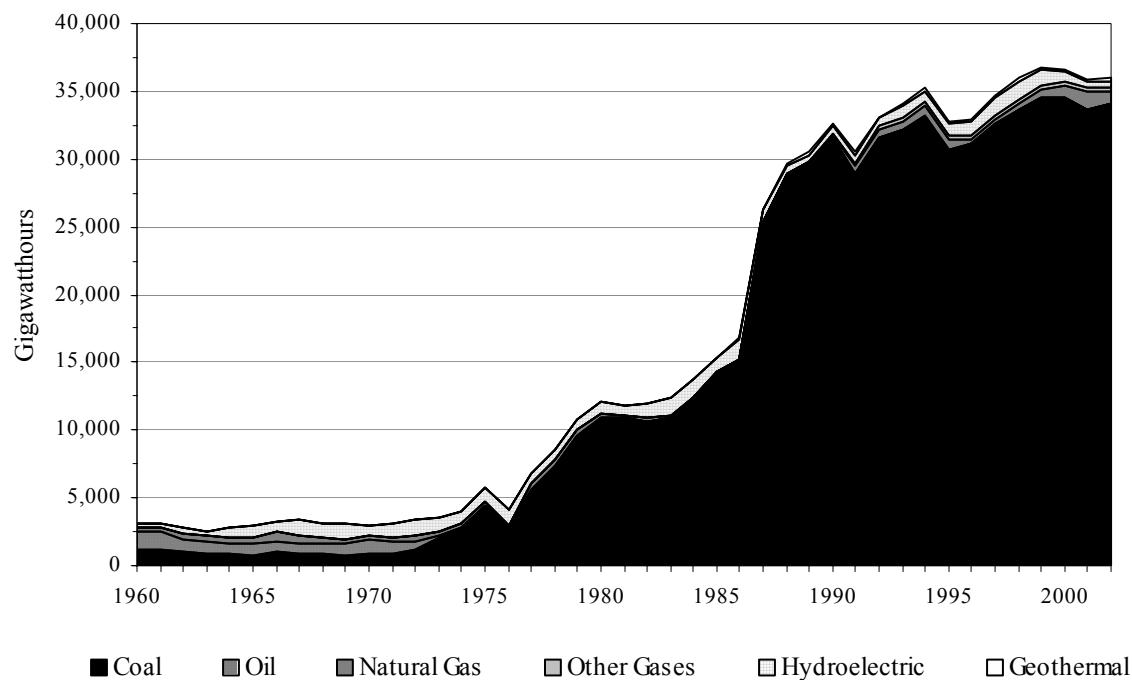
*Preliminary

¹Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels

²EIA only records data from the Blundell Geothermal Plant and not the Cove Fort Plant. Cove Fort's generation data have been added to the overall geothermal total for 1992 to present (data obtained from company interviews).

Note: The non-electric utility component of net generation for Utah is minor.

Figure 5.2 Net Generation of Electricity in Utah by Energy Sources, 1960-2002



Source: EIA, *Electric Power Annual, 2001* and previous issues

Table 5.13 Consumption of Fossil Fuels at Electric Utilities in Utah, 1960-2002

Year	Coal		Percent of Total	Petroleum		Percent of Total	Natural Gas		Percent of Total	Fossil Fuel Total
	Thousand Short Tons	Trillion Btu	(Trillion Btu)	Thousand Barrels	Trillion Btu	(Trillion Btu)	Million Cubic Feet	Trillion Btu	(Trillion Btu)	Trillion Btu
1960	515	12.8	41.2	2,302	14.5	46.6	3,657	3.8	12.2	31.1
1961	563	14.2	43.0	2,172	13.7	41.5	4,859	5.1	15.5	33.0
1962	462	11.5	42.0	1,677	10.5	38.3	5,222	5.4	19.7	27.4
1963	447	11.2	43.1	1,603	10.1	38.8	5,074	4.7	18.1	26.0
1964	411	10.4	43.9	1,531	9.6	40.5	3,987	3.7	15.6	23.7
1965	363	9.1	38.6	1,605	10.1	42.8	4,775	4.4	18.6	23.6
1966	440	11.1	39.8	1,430	9.0	32.3	8,542	7.8	28.0	27.9
1967	410	10.2	39.4	1,411	8.9	34.4	7,390	6.8	26.3	25.9
1968	417	10.6	42.9	1,437	9.0	36.4	5,587	5.1	20.6	24.7
1969	375	9.4	41.0	1,624	10.2	44.5	3,528	3.3	14.4	22.9
1970	435	10.8	42.7	1,777	11.2	44.3	3,513	3.3	13.0	25.3
1971	417	10.3	42.2	1,880	11.8	48.4	2,381	2.3	9.4	24.4
1972	571	13.8	54.3	1,269	8.0	31.5	3,718	3.6	14.2	25.4
1973	984	23.8	77.8	363	2.3	7.5	4,742	4.5	14.7	30.6
1974	1,296	30.9	86.8	141	0.9	2.5	4,009	3.8	10.7	35.6
1975	2,026	47.9	92.5	162	1.0	1.9	3,040	2.9	5.6	51.8
1976	1,267	29.4	90.2	80	0.5	1.5	2,805	2.7	8.3	32.6
1977	2,511	58.5	89.6	292	1.8	2.8	5,344	5.0	7.7	65.3
1978	3,148	73.3	89.8	182	1.1	1.3	7,577	7.2	8.8	81.6
1979	4,151	97.0	92.7	263	1.6	1.5	5,308	6.0	5.7	104.6
1980	4,895	112.1	95.2	126	0.8	0.7	5,133	4.9	4.2	117.8
1981	4,956	113.6	97.1	79	0.5	0.4	3,097	2.9	2.5	117.0
1982	4,947	114.2	97.4	59	0.3	0.3	3,023	2.8	2.4	117.3
1983	5,223	119.4	98.6	79	0.5	0.4	1,259	1.2	1.0	121.1
1984	5,712	130.6	99.5	58	0.3	0.2	271	0.3	0.2	131.2
1985	6,325	149.3	99.5	80	0.5	0.3	235	0.3	0.2	150.1
1986	6,756	155.2	99.4	135	0.8	0.5	229	0.2	0.1	156.2
1987	11,175	259.7	99.5	187	1.1	0.4	263	0.3	0.1	261.1
1988	12,544	288.3	99.7	103	0.6	0.2	187	0.2	0.1	289.1
1989	12,949	293.2	99.6	86	0.5	0.2	656	0.7	0.2	294.4
1990	13,563	311.5	99.6	84	0.5	0.2	907	0.9	0.3	312.9
1991	12,829	294.3	98.0	82	0.5	0.2	5,190	5.5	1.8	300.3
1992	13,857	315.5	97.7	62	0.4	0.1	6,576	7.1	2.2	323.0
1993	13,995	321.6	97.9	62	0.4	0.1	6,305	6.7	2.0	328.7
1994	14,269	327.9	97.1	57	0.3	0.1	8,900	9.3	2.8	337.5
1995	13,325	307.8	97.0	66	0.4	0.1	8,707	9.2	2.9	317.4
1996	13,585	312.8	98.6	59	0.3	0.1	4,087	4.2	1.3	317.3
1997	14,252	323.0	98.6	58	0.3	0.1	4,079	4.2	1.3	327.5
1998	14,664	331.7	98.1	66	0.4	0.1	5,945	6.2	1.8	338.3
1999	14,590	339.1	97.9	55	0.3	0.1	6,478	6.8	2.0	346.2
2000	14,688	342.4	96.7	101	0.6	0.2	10,544	11.1	3.1	354.1
2001	14,906	342.7	95.5	110	0.6	0.2	15,141	15.5	4.3	358.8
2002*	15,644	359.7	96.3	108	0.6	0.2	12,861	13.1	3.5	373.4

Source: EIA, *State Energy Data Report 1990*, Consumption Estimates, for 1960-1990 data,
EIA, *Electric Power Annual, 2001* and previous issues, 1990-2002

*Preliminary

Table 5.14 Coal-Fired Electricity Generation in Utah by Plant, 1992-2002

Company	Plant	Year	Fuel Consumption	Generation	Stocks	MWh per Short Ton
			Short Tons	Megawatthours	Short Tons	
Deseret Gen. & Tran. Coop.	Bonanza 1	1992	1,511,878	3,201,401	316,271	2.12
		1993	1,414,980	3,132,999	402,075	2.21
		1994	1,533,363	3,242,413	383,044	2.11
		1995	1,125,003	2,344,439	142,707	2.08
		1996	1,341,076	2,831,105	77,207	2.11
		1997	1,532,158	2,947,675	310,363	1.92
		1998	1,591,013	3,456,787	258,485	2.17
		1999	1,598,296	3,227,344	na	2.02
		2000	1,510,407	2,931,869	na	1.94
		2001	2,013,770	3,932,642	na	1.95
		2002	2,092,485	3,921,576	na	1.87
City of Los Angeles	Intermountain 1,2	1992	4,959,568	12,264,308	1,185,316	2.47
		1993	4,856,527	11,936,833	1,483,190	2.46
		1994	4,916,555	12,171,664	1,254,515	2.48
		1995	4,248,623	10,306,059	1,248,471	2.43
		1996	4,350,752	10,711,308	774,724	2.46
		1997	5,158,831	12,762,721	706,101	2.47
		1998	5,278,344	12,973,101	871,893	2.46
		1999	5,266,047	13,069,535	na	2.48
		2000	5,301,096	13,176,578	na	2.49
		2001	5,365,021	13,383,601	na	2.49
		2002	5,429,620	13,479,234	na	2.48
Pacificorp	Carbon 1, 2	1992	623,178	1,307,598	46,094	2.10
		1993	631,909	1,358,949	57,500	2.15
		1994	622,621	1,366,103	50,887	2.19
		1995	605,712	1,351,984	43,807	2.23
		1996	622,126	1,410,369	32,061	2.27
		1997	653,833	1,403,936	49,178	2.15
		1998	600,317	1,286,805	45,243	2.14
		1999	552,590	1,217,838	na	2.20
		2000	628,623	1,371,586	na	2.18
		2001	632,124	1,371,822	na	2.17
		2002	615,117	1,322,049	na	2.15
	Hunter 1, 2, 3	1992	4,107,391	8,605,835	896,868	2.10
		1993	4,253,731	9,151,459	759,204	2.15
		1994	4,277,130	9,323,744	464,465	2.18
		1995	4,376,632	9,453,500	444,438	2.16
		1996	4,343,571	9,337,663	270,368	2.15
		1997	4,220,568	8,893,113	584,056	2.11
		1998	4,140,205	9,044,084	757,928	2.18
		1999	4,220,721	9,483,957	na	2.25
		2000	4,226,218	9,518,367	na	2.25
		2001	3,722,062	8,289,465	na	2.23
		2002	4,342,594	9,393,635	na	2.16
	Huntington 1, 2	1992	2,655,409	6,164,281	707,985	2.32
		1993	2,837,819	6,339,069	561,847	2.23
		1994	2,919,715	6,660,541	600,542	2.28
		1995	2,968,886	6,803,932	370,722	2.29
		1996	2,927,155	6,402,742	371,171	2.19
		1997	2,686,976	6,136,491	659,032	2.28
		1998	2,910,474	6,445,954	527,942	2.21
		1999	2,952,484	7,126,340	na	2.41
		2000	3,021,448	7,047,404	na	2.33
		2001	2,670,253	6,226,810	na	2.33
		2002	2,714,232	5,964,609	na	2.20
Total		1992	13,857,424	31,543,423	3,152,534	2.28
		1993	13,994,966	31,919,309	3,263,816	2.28
		1994	14,269,384	32,764,465	2,753,453	2.30
		1995	13,324,856	30,259,914	2,250,145	2.27
		1996	13,584,680	30,693,187	1,525,531	2.26
		1997	14,252,366	32,143,936	2,308,730	2.26
		1998	14,520,353	33,206,731	2,461,491	2.29
		1999	14,590,138	34,125,014	na	2.34
		2000	14,687,792	34,045,804	na	2.32
		2001	14,403,230	33,204,340	na	2.31
		2002	15,194,048	34,081,103	na	2.24

Source: Form EIA-906

Table 5.15 Petroleum-Fired Electricity Generation in Utah by Plant, 1992-2002

Company	Plant	Year	Fuel Consumption	Generation	Stocks	MWh per Barrel
			Barrels	Megawatthours	Barrels	
Deseret Gen. & Tran. Coop.	Bonanza 1	1992	2,801	1,598	1,964	0.57
		1993	3,094	1,825	2,488	0.59
		1994	2,774	1,679	3,506	0.61
		1995	7,753	4,057	2,531	0.52
		1996	2,992	1,639	5,063	0.55
		1997	3,875	1,979	4,597	0.51
		1998	3,181	1,799	7,376	0.57
		1999	3,908	2,180	na	0.56
		2000	15,206	8,318	na	0.55
		2001	5,017	2,854	na	0.57
		2002	3,519	1,747	na	0.50
City of Los Angeles	Intermountain 1,2	1992	20,969	12,651	9,566	0.60
		1993	19,991	13,189	22,607	0.66
		1994	16,355	9,793	12,008	0.60
		1995	23,038	13,609	4,423	0.59
		1996	19,818	11,631	3,812	0.59
		1997	14,962	8,947	8,153	0.60
		1998	13,830	7,873	28,999	0.57
		1999	11,657	7,041	na	0.60
		2000	13,294	7,986	na	0.60
		2001	11,826	7,183	na	0.61
		2002	10,107	6,363	na	0.63
PacifiCorp	Carbon 1, 2	1992	899	531	674	0.59
		1993	1,476	776	509	0.53
		1994	1,556	855	465	0.55
		1995	1,659	899	426	0.54
		1996	1,603	881	309	0.55
		1997	2,204	1,151	325	0.52
		1998	3,462	1,797	351	0.52
		1999	4,732	2,437	na	0.52
		2000	1,291	680	na	0.53
		2001	1,899	893	na	0.47
		2002	2,614	1,346	na	0.51
PacifiCorp	Hunter 1, 2, 3	1992	22,217	10,659	3,744	0.48
		1993	15,288	8,629	4,783	0.56
		1994	18,490	10,590	4,649	0.57
		1995	13,719	7,701	3,654	0.56
		1996	14,690	7,997	4,677	0.54
		1997	17,889	9,496	2,955	0.53
		1998	17,928	9,527	4,840	0.53
		1999	17,840	9,554	na	0.54
		2000	16,619	9,138	na	0.55
		2001	23,936	10,708	na	0.45
		2002	17,360	9,753	na	0.56
PacifiCorp	Huntington 1, 2	1992	7,394	4,188	4,795	0.57
		1993	8,349	4,866	3,518	0.58
		1994	7,537	4,298	2,778	0.57
		1995	11,202	6,449	2,395	0.58
		1996	11,125	6,226	2,326	0.56
		1997	9,931	5,674	2,702	0.57
		1998	12,706	6,941	5,587	0.55
		1999	9,026	5,131	na	0.57
		2000	10,135	5,791	na	0.57
		2001	25,368	14,718	na	0.58
		2002	22,995	13,309	na	0.58
Total		1992	54,280	29,627	20,743	0.55
		1993	48,198	29,285	33,905	0.61
		1994	46,712	27,215	23,406	0.58
		1995	57,371	32,715	13,429	0.57
		1996	50,228	28,374	16,187	0.56
		1997	48,861	27,247	18,732	0.56
		1998	51,107	27,937	47,153	0.55
		1999	47,163	26,343	na	0.56
		2000	56,545	31,913	na	0.56
		2001	68,046	36,356	na	0.53
		2002	56,595	32,518	na	0.57

Source: Form EIA-906

Table 5.16 Natural Gas-Fired Electricity Generation in Utah by Plant, 1994-2002

Operator	Plant	Year	Fuel Consumption	Generation
			Thousand Cubic Feet	Megawatthours
Bountiful City	Bountiful	1994	70	6,907
		1995	33	3,263
		1996	41	3,964
		1997	70	6,697
		1998	0	0
		1999	0	0
		2000	0	0
		2001	na	na
		2002	na	na
City of Heber	Gas Generation	1994	4	468
		1995	4	436
		1996	6	530
		1997	6	596
		1998	0	0
		1999	0	0
		2000	0	0
		2001	na	na
		2002	na	na
City of Murray	Diesel	1994	2	193
		1995	3	261
		1996	2	201
		1997	2	147
		1998	0	0
		1999	0	0
		2000	0	0
		2001	na	na
		2002	na	na
PacifiCorp	Gadsby	1994	7,473	639,083
		1995	7,128	637,451
		1996	1,985	155,594
		1997	2,207	181,892
		1998	3,747	322,953
		1999	4,435	363,093
		2000	8,864	718,120
		2001	11,515	955,476
		2002	7,567	655,259
		Little Mountain	981	63,373
Provo City Corp.	Provo	1995	1,353	81,285
		1996	1,706	98,461
		1997	1,498	76,961
		1998	1,655	84,394
		1999	1,072	52,105
		2000	1,081	61,610
		2001	1,514	88,466
		2002	1,386	80,803
		1994	2	153
Springville City	Whitehead	1995	14	832
		1996	31	2,035
		1997	8	805
		1998	0	0
		1999	0	0
		2000	0	0
		2001	na	na
		2002	na	na
		1994	368	39,428
Total		1995	174	17,587
		1996	314	32,682
		1997	287	30,359
		1998	0	0
		1999	0	0
		2000	0	0
		2001	na	na
		2002	na	na
		1994	8,900	749,605
		1995	8,709	741,115
		1996	4,085	293,467
		1997	4,078	297,457
		1998	5,402	407,347
		1999	5,507	415,198
		2000	9,945	779,730
		2001	13,029	1,043,942
		2002	8,953	736,062

Source: Form EIA-906

Table 5.17 Hydroelectric Generation in Utah by Plant, 1994-2002

Operator	Utility Type	County	Plant Name	Generation - Megawatthours												
				1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Beaver City Corp.	Municipal	Beaver	Beaver Lower	708	742	593	721	590	519	632	719	819	817	516	453	
		Beaver	Beaver Mid	2,349	3,322	3,013	3,106	2,559	3,381	2,972	3,592	3,493	3,925	4,249	3,642	
		Beaver	Beaver Upper	--	--	472	3,383	2,949	3,989	3,216	3,438	4,159	3,351	3,005	2,234	
Bountiful City	Municipal	Summit	Echo Dam	9,096	8,813	7,027	15,106	8,805	15,647	16,343	17,862	20,400	17,954	8,096	5,451	
		Weber	Pine View Dam	--	2,382	1,681	5,666	6,559	7,055	7,916	8,452	9,001	7,042	3,869	3,508	
Brigham City Corp	Municipal	Box Elder	Box Elder	3,933	3,316	3,774	4,101	3,161	3,976	3,995	4,104	4,386	4,290	3,882	3,425	
		Box Elder	Brigham City	2,182	2,463	1,806	4,643	3,461	4,836	4,184	6,156	7,398	6,292	2,330	2,738	
City of Ephraim	Municipal	Sanpete	Hydro Plant No 1	370	119	460	724	698	499	727	701	1,057	932	468	910	
		Sanpete	Hydro Plant No 3	3,502	4,282	5,087	9,205	5,814	3,435	3,869	3,506	6,923	5,472	2,922	5,720	
		Sanpete	Hydro Plant No 4	360	301	341	272	336	434	388	557	335	327	302	330	
Garkane Energy Coop Inc	Cooperative	Garfield	Boulder Lower	--	--	--	--	--	--	--	--	--	3,467	3,502		
		Garfield	Boulder Upper	20,112	20,308	22,429	25,749	22,111	29,261	22,578	24,538	28,326	27,489	23,024	24,148	
Heber Light & Power Co	Municipal	Wasatch	Lake Creek	4,956	4,805	3,442	5,056	3,452	5,212	5,013	5,239	5,582	5,184	4,514	3,403	
		Wasatch	Snake Creek	3,827	4,075	3,664	4,406	4,145	4,531	4,456	4,658	3,335	3,929	3,229	3,134	
Hyrum City Corp.	Municipal	Cache	Hyrum	2,248	2,519	2,019	3,019	2,473	2,945	3,189	3,289	3,250	3,057	2,567	1,100	
City of Logan	Municipal	Cache	Hydro II	13,915	17,582	11,053	23,087	16,760	23,331	24,954	27,259	29,191	27,292	18,012	4,684	
		Cache	Hydro III	3,276	3,838	1,868	5,598	3,914	6,100	6,661	6,937	6,609	7,185	4,516	1,139	
City of Manti	Municipal	Sanpete	Manti Lower	1,817	1,787	1,309	2,484	1,516	2,752	2,600	2,147	2,452	2,607	2,326	1,280	
		Sanpete	Manti Upper	3,612	3,138	5,052	5,676	3,909	3,750	4,500	4,472	4,774	5,120	4,746	3,767	
Monroe City	Municipal	Sevier	Lower	1,139	1,235	1,176	1,421	1,352	1,664	1,410	1,532	1,591	1,505	1,357	1,348	
		Sevier	Upper	1,127	1,270	1,318	1,588	1,527	1,672	1,484	1,550	1,415	663	982	1,479	
		Sevier	Monroe Pumping	108	128	126	202	200	211	167	196	94	178	178	200	
Moon Lake Elec. Assoc.	Cooperative	Duchesne	Uintah	6,945	1,058	7,706	7,312	6,873	8,115	7,050	6,311	6,353	5,881	5,145	2,662	
		Duchesne	Yellowstone	3,819	4,038	3,272	4,302	4,747	3,819	3,144	4,886	5,118	4,692	3,884	4,104	
City of Mt Pleasant	Municipal	Sanpete	Lower Unit	917	866	936	795	981	702	907	907	877	877	456	807	
		Sanpete	Unit 3	--	--	--	499	1,463	1,292	1,039	1,039	1,076	1,076	878	900	
		Sanpete	Unit 4	--	--	--	1,558	4,145	4,403	3,743	3,743	4,437	4,437	3,151	2,938	
		Sanpete	Upper Unit	1,414	1,331	1,327	1,320	1,198	746	1,173	1,173	1,392	1,392	1,032	1,113	
City of Murray	Municipal	Salt Lake	Little Cottonwood	10,786	9,563	10,342	13,954	11,599	18,850	12,866	14,213	12,124	8,887	7,829	7,298	
PacifiCorp	Investor Owned	Beaver	Upper Beaver	7,286	8,393	8,155	10,990	9,553	12,216	10,465	13,513	13,569	10,264	9,669	8,354	6,263
		Box Elder	Cutler	30,198	45,114	26,350	87,467	44,411	89,085	94,589	170,790	176,412	152,045	62,288	35,802	37,684
		Salt Lake	Granite	4,217	4,350	3,168	4,839	4,590	7,026	6,669	6,656	2,553	1,199	6,227	6,596	6,056
		Salt Lake	Stairs	1,305	4,843	3,647	5,613	4,509	5,753	6,226	6,573	7,846	7,340	5,299	6,511	4,902
		Utah	Olmstead	-77	18,746	11,282	30,455	15,164	27,938	35,403	46,319	56,238	38,353	27,350	21,559	11,706
		Wasatch	Snake Creek	1,477	1,563	901	3,180	2,039	3,823	4,131	4,600	4,646	3,613	2,520	3,310	2,014
		Weber	Weber	12,924	16,107	11,433	19,252	17,163	19,624	24,975	25,787	25,346	23,642	18,239	10,203	10,118

Table 5.17 Cont.

Operator	Utility Type	County	Plant Name	Generation - Megawatthours												
				1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Pacificorp	Investor Owned	Weber	Pioneer	8,756	9,335	7,772	15,869	17,886	21,865	26,982	30,154	28,113	24,526	16,601	10,118	10,000
		Washington	Veyo	454	486	559	1,242	589	1,069	642	685	1,827	712	284	1,241	217
		Washington	Gunlock	652	1,037	1,873	2,351	1,239	2,474	887	1,165	2,905	1,506	1,377	1,630	372
		Utah	American Fork	5,411	4,137	4,580	1,649	-11	0	0	290	986	882	5,860	5,479	5,403
		Sanpete	Fountain Green	480	649	477	1,097	1,057	1,392	603	664	1,221	1,321	984	761	523
		Rich	Last Chance^	4,948	4,453	4,300	3,801	4,465	4,779	5,008	9,718	14,959	9,007	5,894	6,899	3,799
		Washington	Sand Cove	404	892	1,740	1,679	568	2,151	781	1,054	2,624	1,316	1,194	1,328	318
Parowan City Corp.	Municipal	Iron	Center Creek	1,928	1,966	2,311	2,340	2,533	2,392	2,300	2,300	2,809	187	214	2,099	
		Iron	Red Creek	986	1,586	1,649	2,135	1,696	2,351	2,180	2,180	1,598	229	151	1,100	
City of Springville	Municipal	Utah	Bartholomew	1,797	2,879	1,441	3,435	2,251	4,266	3,564	4,066	4,153	2,701	2,324	1,224	
		Utah	Hobble Creek	732	1,189	666	1,036	798	1,023	964	1,123	1,111	1,047	754	474	
		Utah	Spring Creek	14	33	143	370	277	619	449	559	730	411	144	123	
		Utah	Upper Bartholomew	--	--	--	92	89	461	191	246	489	141	116	186	
St. George City	Municipal	Washington	Gunlock Hydro	130	297	807	1,372	585	1,504	497	593	2,292	706	421	619	
		Washington	Pine Valley	--	--	--	--	--	1,364	1,235	1,386	2,097	1,178	1,104	1,344	
Strawberry WUA	Investor Owned	Utah	Spanish Fork	9,085	8,396	10,423	12,944	6,101	14,412	13,514	15,121	15,835	12,502	7,698	7,178	
		Utah	Payson	1,544	1,573	1,199	1,729	1,452	2,284	2,177	2,338	2,500	1,961	1,877	1,725	
U.S. Bureau of Reclamation	Federal	Daggett	Flaming Gorge	251,693	342,072	346,170	398,790	410,717	484,289	594,610	784,079	714,406	758,658	417,574	253,192	215,676
		Wasatch	Deer Creek	18,924	17,687	15,870	19,027	18,958	21,484	29,164	35,443	35,820	29,427	24,951	20,184	16,110
Weber Basin WCD	Federal	Morgan	Gateway	8,623	2,017	6,580	18,948	12,954	17,131	0	--	--	--	--	--	
		Summit	Wanship	9,333	1,183	4,934	11,754	7,100	10,431	0	--	--	--	--	--	
Total Generation				487,732	606,255	581,715	820,402	718,024	928,328	1,021,378	1,332,575	1,301,050	1,248,726	744,046	508,657	331,161

Source: Form EIA-906

*Available preliminary data

^Not recorded in EIA's capacity database (Form EIA-860)

Table 5.18 **Cost of Fuel to Generate Electricity in Utah, 1970-2002**
 Dollars per Unit

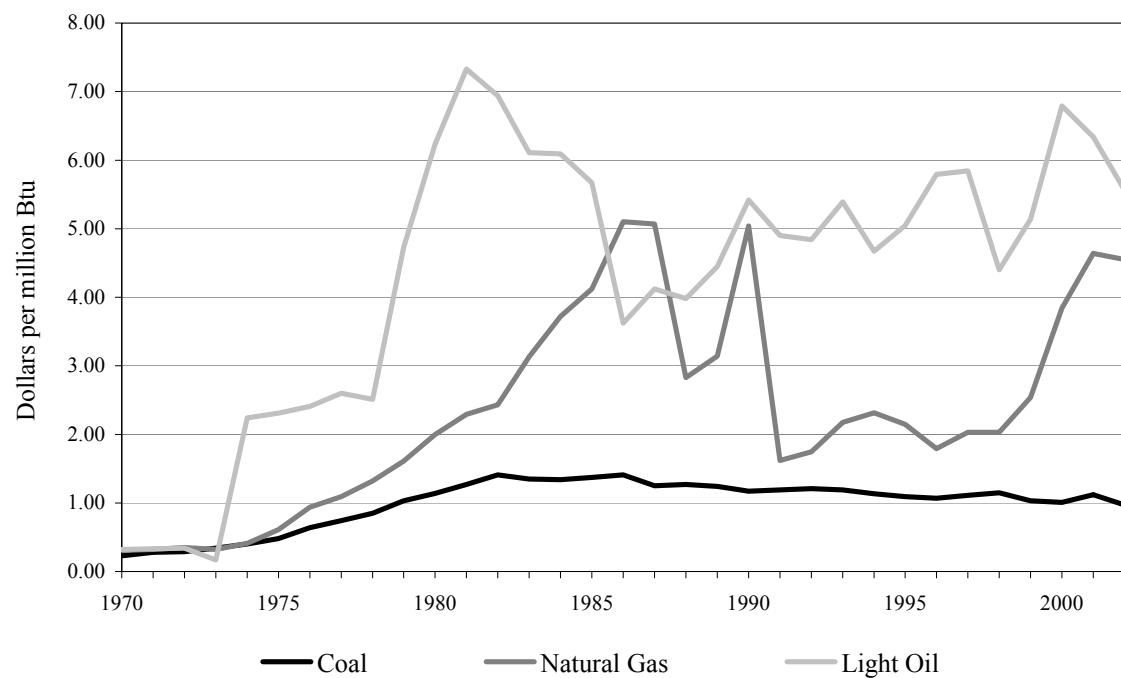
Year	Coal			Natural Gas			Light Oil		
	Short Ton	Million Btu	Million Btu per Short Ton	Mcf	Million Btu	Million Btu per Mcf	Barrel	Million Btu	Million Btu per Barrel
1970	5.71	0.23	24.81	0.29	0.31	0.94	1.84	0.32	5.75
1971	6.88	0.28	24.56	0.30	0.32	0.94	1.90	0.33	5.75
1972	7.03	0.29	24.23	0.33	0.35	0.94	1.95	0.34	5.75
1973	8.20	0.34	24.13	0.30	0.32	0.94	0.98	0.17	5.75
1974	9.53	0.40	23.83	0.39	0.41	0.95	12.87	2.24	5.75
1975	11.35	0.48	23.65	0.57	0.61	0.94	13.28	2.31	5.75
1976	14.85	0.64	23.20	0.89	0.94	0.95	13.85	2.41	5.75
1977	17.23	0.74	23.28	1.03	1.09	0.95	14.94	2.60	5.75
1978	19.79	0.85	23.28	1.26	1.32	0.95	14.43	2.51	5.75
1979	24.06	1.03	23.36	1.55	1.61	0.96	27.19	4.73	5.75
1980	26.11	1.14	22.90	1.91	2.00	0.96	35.81	6.23	5.75
1981	29.11	1.27	22.92	2.13	2.29	0.93	42.13	7.33	5.75
1982	32.55	1.41	23.08	2.28	2.43	0.94	39.89	6.94	5.75
1983	30.87	1.35	22.87	2.95	3.13	0.94	35.12	6.11	5.75
1984	30.63	1.34	22.86	3.83	3.72	1.03	35.00	6.09	5.75
1985	32.34	1.37	23.61	4.43	4.12	1.08	32.59	5.67	5.75
1986	32.39	1.41	22.98	5.54	5.10	1.09	20.81	3.62	5.75
1987	29.05	1.25	23.24	5.47	5.07	1.08	23.68	4.12	5.75
1988	29.19	1.27	22.98	3.05	2.83	1.08	23.40	3.98	5.88
1989	28.08	1.24	22.64	3.38	3.14	1.08	26.17	4.45	5.88
1990	26.80	1.17	22.91	5.04	5.04	1.00	31.84	5.42	5.87
1991	27.40	1.19	23.03	1.72	1.62	1.06	28.75	4.90	5.87
1992	27.54	1.21	22.78	1.87	1.75	1.07	28.47	4.84	5.88
1993	27.34	1.19	22.97	2.31	2.18	1.06	31.61	5.39	5.86
1994	26.10	1.14	22.98	2.42	2.32	1.04	27.45	4.67	5.87
1995	25.27	1.09	23.10	2.26	2.15	1.05	29.53	5.05	5.85
1996	24.66	1.07	23.03	1.83	1.79	1.02	33.95	5.79	5.86
1997	25.22	1.11	22.72	2.09	2.03	1.03	34.27	5.84	5.86
1998	25.97	1.15	22.58	2.11	2.03	1.04	25.80	4.40	5.86
1999	23.96	1.03	23.26	2.65	2.54	1.04	30.14	5.14	5.86
2000	23.66	1.01	23.43	4.02	3.84	1.05	39.70	6.79	5.85
2001	25.86	1.12	23.09	4.87	4.64	1.05	37.09	6.34	5.85
2002*	22.40	0.97	23.09	4.78	4.55	1.05	32.53	5.56	5.85

Source: EIA, *State Energy Price and Expenditure Report*, 1970-2000

EIA, *Electric Power Monthly*, April 2003, 2001-2002

*Preliminary

Figure 5.3 Cost of Fuel to Generate Electricity in Utah, 1970-2002



Source: EIA, *State Energy Price and Expenditure Report*, 1970-2000
EIA, *Electric Power Monthly*, April 2003, 2001-2002

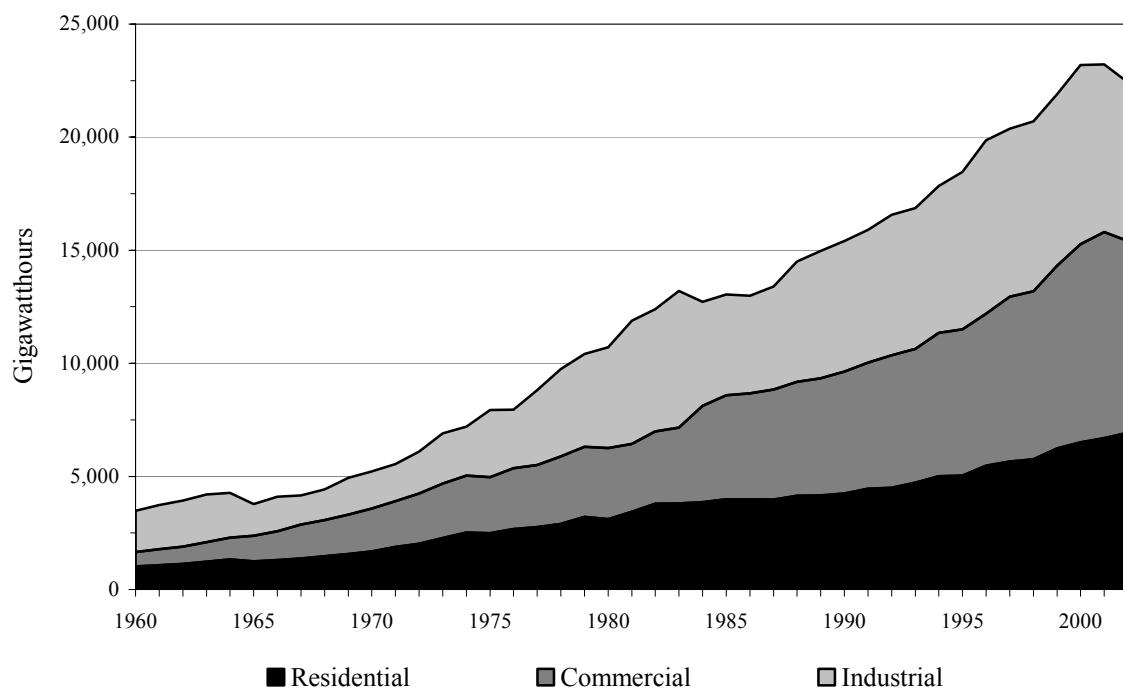
Table 5.19 Sales of Electricity in Utah by Class of Service, 1960-2002
 Gigawatthours

Year	Residential	Commercial	Industrial	Total
1960	1,012	640	1,822	3,474
1961	1,071	707	1,960	3,738
1962	1,125	777	2,028	3,930
1963	1,228	868	2,111	4,207
1964	1,331	955	1,993	4,279
1965	1,243	1,128	1,404	3,775
1966	1,306	1,274	1,523	4,103
1967	1,373	1,498	1,283	4,154
1968	1,465	1,607	1,358	4,430
1969	1,569	1,748	1,616	4,933
1970	1,688	1,890	1,648	5,226
1971	1,879	2,028	1,643	5,550
1972	2,023	2,226	1,843	6,092
1973	2,271	2,416	2,219	6,906
1974	2,525	2,516	2,159	7,200
1975	2,493	2,479	2,968	7,940
1976	2,672	2,697	2,578	7,947
1977	2,761	2,749	3,299	8,809
1978	2,900	2,990	3,858	9,748
1979	3,209	3,106	4,100	10,415
1980	3,116	3,141	4,448	10,705
1981	3,436	2,999	5,451	11,886
1982	3,785	3,207	5,399	12,391
1983	3,804	3,350	6,040	13,194
1984	3,856	4,269	4,592	12,717
1985	3,985	4,596	4,458	13,039
1986	3,989	4,682	4,318	12,989
1987	3,980	4,863	4,555	13,398
1988	4,151	5,035	5,321	14,507
1989	4,163	5,173	5,629	14,965
1990	4,246	5,389	5,766	15,401
1991	4,460	5,571	5,876	15,907
1992	4,505	5,850	6,212	16,567
1993	4,726	5,920	6,221	16,867
1994	5,009	6,340	6,498	17,847
1995	5,041	6,462	6,957	18,460
1996	5,481	6,717	7,660	19,858
1997	5,661	7,285	7,430	20,376
1998	5,756	7,433	7,511	20,700
1999	6,236	8,075	7,586	21,898
2000	6,514	8,754	7,917	23,185
2001	6,693	9,113	7,411	23,217
2002*	6,938	8,463	7,019	22,420

Source: EIA, *Electric Power Annual, 2001*
 Form EIA-861

*Preliminary

Figure 5.4 Sales of Electricity in Utah by Class of Service, 1960-2002



Source: EIA, *Electric Power Annual, 2001*
Form EIA-861

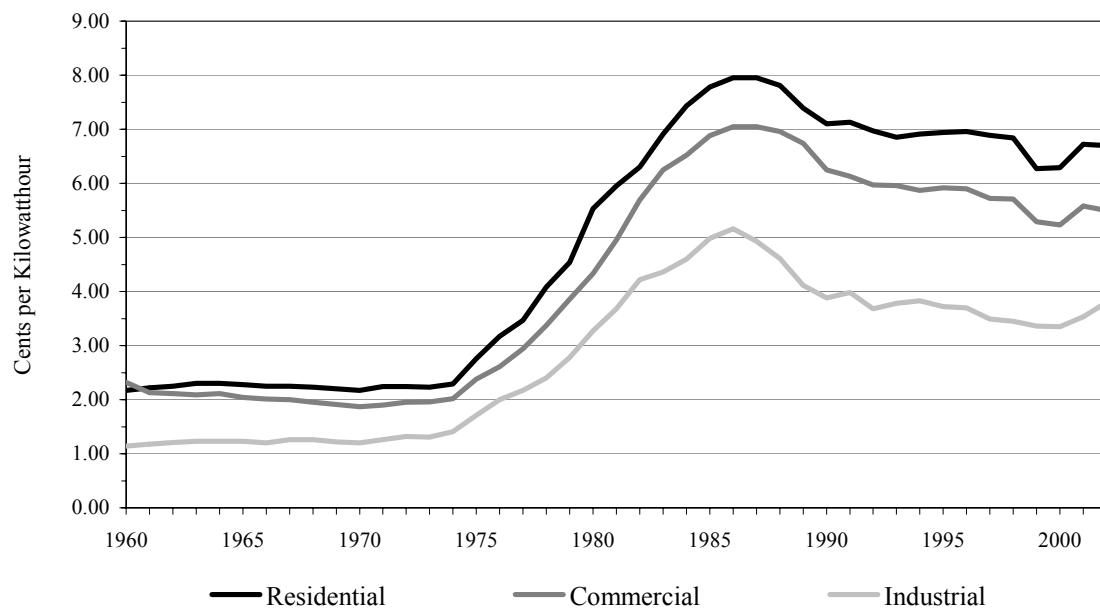
Table 5.20 Price of Electricity in Utah by Class of Service, 1960-2002
 Cents per Kilowatthour

Year	Residential	Commercial	Industrial	All Sectors
1960	2.17	2.32	1.14	1.75
1961	2.22	2.13	1.18	1.77
1962	2.25	2.11	1.21	1.78
1963	2.30	2.09	1.23	1.81
1964	2.30	2.11	1.23	1.82
1965	2.28	2.04	1.23	1.80
1966	2.25	2.01	1.20	1.76
1967	2.25	2.00	1.26	1.77
1968	2.23	1.95	1.26	1.74
1969	2.20	1.91	1.22	1.70
1970	2.17	1.87	1.20	1.68
1971	2.24	1.90	1.26	1.75
1972	2.24	1.95	1.32	1.79
1973	2.23	1.96	1.31	1.80
1974	2.29	2.02	1.41	1.88
1975	2.76	2.38	1.71	2.25
1976	3.17	2.61	2.00	2.57
1977	3.47	2.94	2.17	2.83
1978	4.08	3.37	2.40	3.20
1979	4.54	3.86	2.78	3.64
1980	5.53	4.33	3.27	4.29
1981	5.95	4.95	3.68	4.73
1982	6.30	5.69	4.22	5.20
1983	6.91	6.25	4.36	5.64
1984	7.43	6.52	4.60	6.01
1985	7.78	6.88	4.98	6.42
1986	7.95	7.05	5.16	6.61
1987	7.95	7.05	4.93	6.50
1988	7.81	6.96	4.61	6.24
1989	7.39	6.74	4.11	5.79
1990	7.10	6.25	3.88	5.46
1991	7.13	6.13	3.98	5.44
1992	6.97	5.97	3.68	5.30
1993	6.85	5.96	3.78	5.33
1994	6.91	5.87	3.83	5.36
1995	6.94	5.92	3.72	5.30
1996	6.96	5.90	3.70	5.28
1997	6.89	5.72	3.49	5.17
1998	6.84	5.71	3.45	5.16
1999	6.27	5.29	3.36	4.86
2000	6.29	5.23	3.35	4.84
2001	6.72	5.58	3.53	5.21
2002*	6.70	5.50	3.80	5.30

Source: EIA, *Electric Power Annual, 2001*
 EIA, *Electric Power Monthly*, March 2003

*Preliminary

Figure 5.5 Price of Electricity in Utah by Class of Service, 1960-2002



Source: EIA, *Electric Power Annual, 2001*
EIA, *Electric Power Monthly*, March 2003

Table 5.21 **U.S. Price of Electricity by State, 1993-2002**
 Cents per Kilowatthour

2002 Rank	State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*	Percent Change 1993-2002
1	Kentucky	4.32	4.26	4.07	4.03	4.03	4.16	4.17	4.18	4.20	4.30	-0.5%
2	Wyoming	4.25	4.26	4.32	4.31	4.33	4.31	4.30	4.34	4.40	4.70	10.6%
3	West Virginia	5.22	5.25	5.34	5.21	5.02	5.07	5.09	5.07	5.10	5.10	-2.3%
4	Utah	5.33	5.36	5.31	5.28	5.17	5.16	4.86	4.84	5.20	5.30	-0.6%
5	Indiana	5.17	5.25	5.24	5.23	5.29	5.34	5.29	5.18	5.30	5.30	2.5%
6	Nebraska	5.54	5.49	5.40	5.32	5.30	5.30	5.31	5.31	5.30	5.50	-0.7%
7	Oklahoma	5.96	5.84	5.57	5.56	5.42	5.43	5.37	5.88	6.00	5.60	-6.0%
8	North Dakota	5.83	5.77	5.71	5.65	5.65	5.70	5.49	5.44	5.50	5.60	-3.9%
9	Tennessee	5.22	5.23	5.21	5.24	5.31	5.62	5.63	5.58	5.70	5.70	9.2%
10	Alabama	5.67	5.48	5.47	5.35	5.33	5.56	5.54	5.61	5.60	5.70	0.5%
11	Idaho	4.00	4.00	4.09	3.96	3.87	4.02	3.98	4.17	5.00	5.80	45.0%
12	Arkansas	6.62	6.35	6.27	6.15	6.15	5.78	5.68	5.77	6.00	5.80	-12.4%
13	Washington	3.65	4.02	4.10	4.19	4.04	4.03	4.10	4.41	5.60	5.90	61.6%
14	Montana	4.36	4.51	4.65	4.72	5.20	4.80	5.01	4.74	6.10	5.90	35.3%
15	South Carolina	5.64	5.67	5.69	5.67	5.50	5.53	5.57	5.62	5.80	5.90	4.6%
16	Minnesota	5.60	5.63	5.58	5.54	5.61	5.71	5.83	5.87	6.00	5.90	5.4%
17	Colorado	6.05	6.07	6.11	6.05	5.95	5.95	5.95	5.88	6.00	6.00	-0.8%
18	Iowa	5.97	5.92	6.03	5.94	5.97	6.04	5.93	5.93	6.10	6.10	2.2%
19	Louisiana	6.26	6.05	5.75	6.07	5.99	5.78	5.81	6.48	6.90	6.10	-2.6%
20	Missouri	6.33	6.28	6.26	6.11	6.09	6.08	6.07	6.02	6.10	6.10	-3.6%
21	Wisconsin	5.52	5.46	5.36	5.25	5.22	5.44	5.53	5.71	6.10	6.20	12.3%
22	Virginia	6.23	6.20	6.26	6.09	6.14	5.88	5.86	5.94	6.10	6.20	-0.5%
23	Mississippi	6.18	6.05	5.98	6.01	5.91	5.98	5.65	5.85	6.30	6.30	1.9%
24	Kansas	6.60	6.61	6.56	6.52	6.31	6.28	6.22	6.27	6.30	6.30	-4.5%
25	Georgia	6.71	6.57	6.62	6.43	6.37	6.40	6.24	6.21	6.50	6.30	-6.1%
26	South Dakota	6.20	6.19	6.20	6.18	6.22	6.26	6.35	6.32	6.40	6.40	3.2%
27	Maryland	6.96	7.03	7.06	6.96	6.98	6.99	7.04	6.74	6.50	6.50	-6.6%
28	Oregon	4.43	4.60	4.67	4.77	4.61	4.90	4.87	4.89	5.70	6.60	49.0%
29	Ohio	6.22	6.19	6.24	6.30	6.25	6.38	6.40	6.50	6.70	6.60	6.1%
30	North Carolina	6.63	6.62	6.58	6.53	6.48	6.45	6.44	6.48	6.70	6.70	1.1%
31	New Mexico	7.23	7.11	6.77	6.76	6.80	6.78	6.58	6.58	7.00	6.70	-7.3%
32	Texas	6.39	6.42	6.10	6.16	6.17	6.07	6.04	6.49	7.40	6.80	6.4%
33	Delaware	6.98	6.78	6.91	6.88	7.00	6.88	7.12	6.17	6.60	6.80	-2.6%
34	Michigan	7.14	7.09	7.05	7.10	7.04	7.09	7.14	7.12	7.10	7.00	-2.0%
35	Arizona	8.21	7.93	7.61	7.54	7.38	7.33	7.23	7.26	7.20	7.10	-13.5%
36	Florida	7.20	6.96	7.01	7.18	7.19	7.01	6.85	6.91	7.70	7.30	1.4%
37	District of Columbia	6.78	7.12	7.12	7.35	7.39	7.41	7.45	7.52	7.20	7.30	7.7%
38	Illinois	7.75	7.41	7.69	7.69	7.71	7.46	6.98	6.99	6.80	7.40	-4.5%

Table 5.21 Cont.

2002 Rank	State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*	Percent Change 1993-2002
39	Pennsylvania	7.92	7.87	7.93	7.96	7.99	7.86	7.67	7.82	7.80	8.00	1.0%
40	Nevada	5.87	6.37	6.10	5.95	5.60	5.76	5.93	6.17	7.80	8.40	43.1%
41	Maine	9.10	9.63	9.49	9.46	9.51	9.75	9.77	9.96	10.10	9.20	1.1%
42	Rhode Island	10.40	10.24	10.38	10.48	10.70	9.58	9.02	10.20	10.90	9.20	-11.5%
43	New Jersey	9.99	10.06	10.44	10.50	10.54	10.17	9.99	9.47	9.40	9.40	-5.9%
44	Connecticut	10.26	10.18	10.50	10.51	10.52	10.30	9.96	9.52	9.60	9.70	-5.5%
45	Massachusetts	9.98	10.00	10.12	10.13	10.48	9.59	9.16	9.57	10.90	10.00	0.2%
46	Alaska	10.12	10.25	10.17	10.24	10.07	9.97	9.78	10.08	10.50	10.40	2.8%
47	New Hampshire	10.85	11.32	11.72	11.59	11.66	11.93	11.75	11.26	11.00	10.50	-3.2%
48	Vermont	9.04	9.13	9.46	9.74	9.89	9.83	10.28	10.27	10.80	10.90	20.6%
49	New York	10.72	10.92	11.06	11.13	11.13	10.71	10.40	11.23	10.90	10.90	1.7%
50	California	9.69	9.78	9.91	9.48	9.54	9.03	9.34	9.66	11.40	11.80	21.8%
51	Hawaii	10.66	10.68	11.30	12.12	12.49	11.56	11.97	14.03	13.70	13.10	22.9%
	U.S. Average	6.93	6.91	6.89	6.86	6.85	6.74	6.66	6.78	7.26	7.21	4.0%

Source: EIA, *Electric Power Annual, 2001* and previous issues

EIA, *Electric Power Monthly*, March 2003

*Preliminary

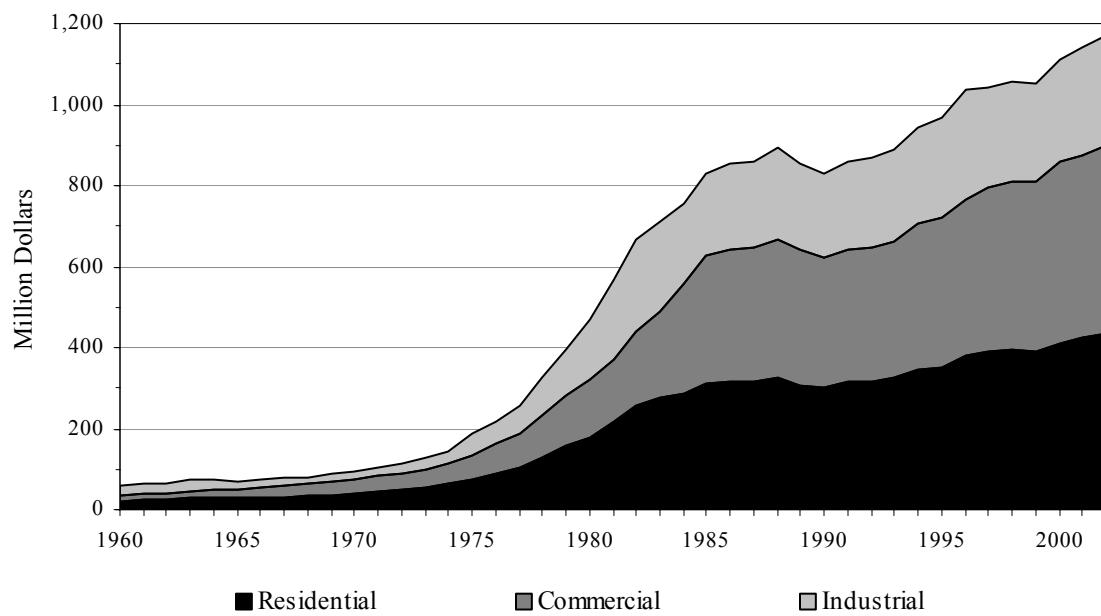
Table 5.22 Expenditures for Electricity by Class of Service in Utah, 1960-2002
Million Dollars

Year	Residential	Commercial	Industrial	Total
1960	22	15	21	58
1961	24	15	23	62
1962	25	16	25	66
1963	28	18	26	72
1964	31	20	25	75
1965	28	23	17	69
1966	29	26	18	73
1967	31	30	16	77
1968	33	31	17	81
1969	35	33	20	88
1970	39	34	19	92
1971	44	38	20	102
1972	48	43	23	114
1973	54	47	28	130
1974	64	52	30	145
1975	75	61	51	187
1976	91	73	51	215
1977	102	84	71	257
1978	126	105	92	324
1979	156	126	115	397
1980	180	142	148	469
1981	216	154	200	570
1982	254	184	227	665
1983	277	212	223	713
1984	286	273	199	758
1985	310	315	206	831
1986	317	327	209	853
1987	316	333	213	862
1988	324	342	230	896
1989	308	333	213	854
1990	303	319	209	831
1991	318	325	215	858
1992	314	335	219	868
1993	324	340	224	887
1994	346	361	237	945
1995	350	370	247	968
1996	381	385	271	1,037
1997	390	405	247	1,042
1998	394	416	248	1,057
1999	391	418	242	1,052
2000	410	448	253	1,110
2001*	424	452	264	1,140
2002*	435	465	269	1,169

Source: EIA, State Energy Data, 2000

*UEO estimations

Figure 5.6 Expenditures for Electricity by Class of Service in Utah, 1960-2002



Source: EIA, State Energy Data, 2000

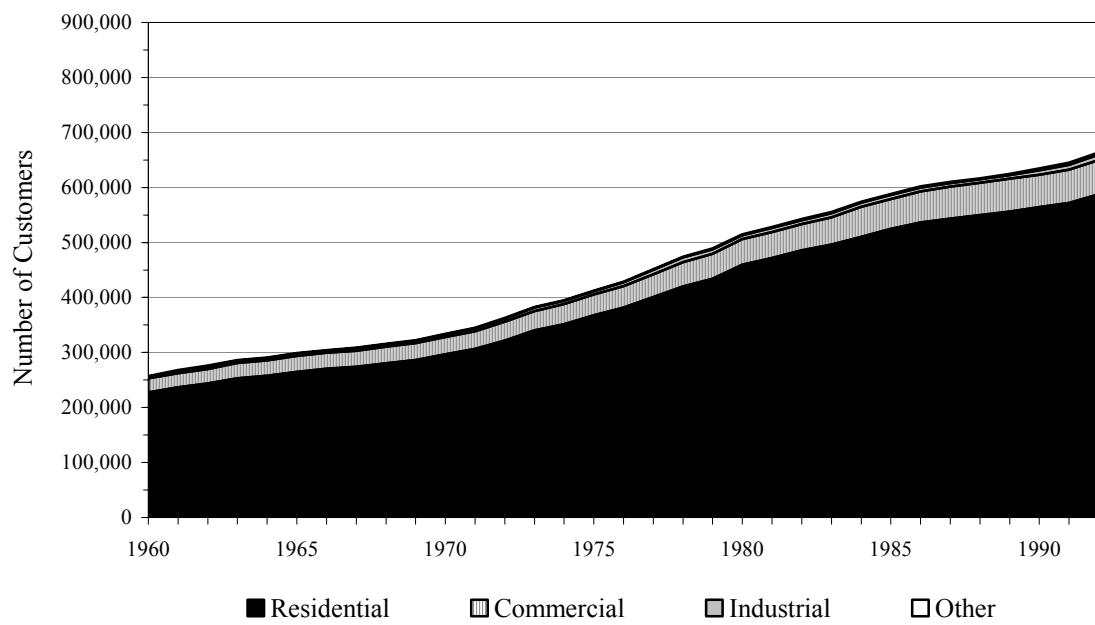
Table 5.23 Electric Utility Customers in Utah by Class of Service, 1960-2002

Year	Residential	Commercial	Industrial	Other	Total
1960	227,186	25,982	3,078	967	257,213
1961	236,687	25,459	4,465	1,341	267,952
1962	244,018	26,198	4,283	1,945	276,444
1963	253,056	27,698	4,061	1,414	286,229
1964	257,736	27,852	4,079	1,469	291,136
1965	264,870	28,689	4,038	1,484	299,081
1966	270,456	28,886	3,883	1,310	304,535
1967	273,903	29,411	4,153	1,298	308,765
1968	280,397	30,041	4,326	1,115	315,879
1969	286,499	30,487	4,324	1,132	322,442
1970	296,829	31,564	4,576	1,144	334,113
1971	306,676	31,953	5,179	1,141	344,949
1972	321,551	34,321	5,681	1,221	362,774
1973	340,444	35,032	6,003	1,234	382,713
1974	351,526	36,246	5,940	1,265	394,977
1975	367,592	37,905	5,805	1,314	412,616
1976	381,552	39,259	6,673	1,366	428,850
1977	400,775	41,342	7,974	1,467	451,558
1978	420,054	44,138	8,659	1,534	474,385
1979	433,989	45,171	8,469	1,586	489,215
1980	459,369	46,860	6,797	1,732	514,758
1981	471,537	47,665	7,338	1,918	528,458
1982	485,649	47,995	7,083	2,182	542,909
1983	496,324	49,315	7,904	2,332	555,875
1984	510,392	54,692	7,251	2,146	574,481
1985	524,496	54,566	7,186	2,068	588,316
1986	536,264	56,463	7,280	2,150	602,157
1987	543,404	58,115	6,321	2,199	610,039
1988	550,048	58,658	5,996	2,095	616,797
1989	556,292	59,779	6,372	2,157	624,600
1990	564,148	59,203	7,606	3,641	634,598
1991	572,082	60,278	8,646	3,943	644,949
1992	587,837	62,072	9,633	4,279	663,821
1993	605,605	65,562	10,933	4,807	686,907
1994	623,036	65,999	12,051	4,830	705,916
1995	640,828	68,780	12,234	5,020	726,862
1996	663,667	71,083	13,212	4,688	752,650
1997	691,481	74,883	10,058	4,962	781,384
1998	716,411	77,299	8,931	5,077	807,718
1999	738,880	80,840	8,731	5,355	833,806
2000	759,649	84,998	8,441	4,889	857,977
2001	771,928	87,659	8,645	4,629	872,861
2002*	799,194	92,103	8,624	4,617	904,538

Source: Edison Electric Institute, *Statistical Yearbook of the Electric Utility Industry*, for 1960-1989 data
EIA, *Electric Power Annual, 2001*, 1990-2002

*Preliminary

Figure 5.7 Electric Utility Customers in Utah by Class of Service, 1960-2002



Source: Edison Electric Institute, *Statistical Yearbook of the Electric Utility Industry*, for 1960-1989 data
EIA, *Electric Power Annual, 2001*, 1990-2002

Table 5.24 Electric Utilities in Utah, 2002

Electric Utility	Class of Ownership	Customers	Revenue	Sales	Average Revenue
			Thousand dollars	Thousand kWh	Cents per kWh
Utah Power	Investor-Owned	683,463	946,418	18,719,865	5.06
Non-Utah Power		221,075	308,121	4,547,323	7.20
Beaver City Corporation	Publicly Owned	1,271	1,779	24,576	7.24
Blanding, City of	Publicly Owned	1,558	1,541	20,952	7.35
Bountiful City, City of	Publicly Owned	15,500	18,095	279,337	6.48
Bridger Valley Elec Assn, Inc	Cooperative	1,758	969	9,714	9.98
Brigham City Corporation	Publicly Owned	6,831	7,887	138,947	5.68
Dixie Escalante R E A, Inc	Cooperative	6,839	9,343	177,139	5.27
Empire Electric Assn, Inc	Cooperative	1,177	1,352	15,619	8.66
Enterprise, City of	Publicly Owned	505	477	6,055	7.88
Ephraim, City of	Publicly Owned	1,572	1,957	27,423	7.14
Fairview City Corporation	Publicly Owned	765	675	6,957	9.70
Fillmore City Corporation	Publicly Owned	1,088	2,212	30,092	7.35
Flowell Electric Assn, Inc	Cooperative	406	1,363	26,397	5.16
Garkane Energy Coop, Inc	Cooperative	7,458	8,390	112,102	7.48
Heber Light & Power Company	Publicly Owned	6,897	7,894	94,019	8.40
Helper, City of	Publicly Owned	1,129	588	11,075	5.31
Holden, Town of	Publicly Owned	200	133	1,926	6.91
Hurricane Power Committee	Publicly Owned	3,956	4,990	61,330	8.14
Hyrum City Corporation	Publicly Owned	2,141	3,646	64,748	5.63
Kanab City Corporation	Publicly Owned	1,377	1,955	22,222	8.80
Kanosh Town Corporation	Publicly Owned	234	131	2,017	6.49
Kaysville City Corporation	Publicly Owned	6,567	7,158	94,228	7.60
Lehi City Corporation	Publicly Owned	6,677	14,852	163,552	9.08
Levan Town Corporation	Publicly Owned	289	214	3,563	6.01
Logan, City of	Publicly Owned	16,441	26,563	388,401	6.84
Manti, City of	Publicly Owned	1,191	982	14,862	6.61
Meadow Town Corporation	Publicly Owned	159	87	1,320	6.59
Monroe, City of	Publicly Owned	961	695	9,971	6.97
Moon Lake Electric Assn Inc	Cooperative	12,375	21,458	321,355	6.68
Morgan City Corporation	Publicly Owned	1,254	1,030	14,018	7.35
Mt Pleasant City of	Publicly Owned	1,685	1,352	16,311	8.29
Mt Wheeler Power, Inc	Cooperative	345	585	8,415	6.95
Murray, City of	Publicly Owned	15,938	22,780	365,004	6.24
Navajo Tribal Utility Auth	Publicly Owned	420	594	7,539	7.88
Nephi City Corporation	Publicly Owned	1,889	3,575	40,372	8.86
Oak City, Town of	Publicly Owned	252	157	2,690	5.84
Paragonah, Town of	Publicly Owned	230	157	1,642	9.56
Parowan City Corporation	Publicly Owned	1,287	1,021	13,877	7.36
Payson City Corporation	Publicly Owned	4,884	7,274	80,047	9.09
Price Municipal Corporation	Publicly Owned	3,755	4,012	67,801	5.92
Provo City Corporation	Publicly Owned	32,741	44,144	706,560	6.25
Raft River Rural Elec Coop Inc	Cooperative	595	1,547	38,203	4.05
Salem City Corporation	Publicly Owned	1,406	1,350	18,509	7.29
Santa Clara, City of	Publicly Owned	1,597	1,998	24,286	8.23
Spanish Fork City Corporation	Publicly Owned	7,681	10,773	157,426	6.84
Spring City Corporation	Publicly Owned	476	316	3,267	9.67
Springville, City of	Publicly Owned	8,326	17,246	206,845	8.34
St George, City of	Publicly Owned	21,113	30,175	467,707	6.45
Strawberry Electric Serv Dist	Publicly Owned	3,051	4,306	44,028	9.78
Washington, City of	Publicly Owned	4,152	3,733	61,030	6.12
Wells Rural Electric Co	Cooperative	671	1,400	20,327	6.89
Western Area Power Administration	Federal	5	1,210	51,520	2.35
State Total		904,538	1,254,539	23,267,188	5.39

Source: Form EIA-861

Table 5.25 Electric Utilities Serving the Residential Sector in Utah, 2002

Electric Utility	Class of Ownership	Customers	Revenue	Sales	Average Revenue
				Thousand dollars	Thousand kWh
Utah Power	Investor-Owned	607,746	346,764	5,250,614	6.60
Non-Utah Power		191,448	124,518	1,687,677	7.63
Beaver City Corporation	Publicly Owned	990	702	9,112	7.70
Blanding, City of	Publicly Owned	1,279	804	10,587	7.59
Bountiful, City of	Publicly Owned	14,054	9,698	137,209	7.07
Bridger Valley Elec Assn, Inc.	Cooperative	1,596	627	5,524	11.35
Brigham City Corporation	Publicly Owned	6,055	3,411	49,967	6.83
Dixie Escalante R E A, Inc.	Cooperative	6,009	5,540	102,186	5.42
Empire Electric Assn, Inc.	Cooperative	900	634	6,905	9.18
Enterprise, City of	Publicly Owned	430	286	3,846	7.44
Ephraim, City of	Publicly Owned	1,371	713	11,396	6.26
Fairview City Corporation	Publicly Owned	685	500	5,287	9.46
Fillmore City Corporation	Publicly Owned	834	567	6,639	8.54
Flowell Electric Assn, Inc.	Cooperative	164	140	2,183	6.41
Garkane Energy Coop, Inc.	Cooperative	6,576	3,881	48,291	8.04
Heber Light & Power Company	Publicly Owned	5,936	4,286	49,640	8.63
Helper, City of	Publicly Owned	1,080	396	7,687	5.15
Holden, Town of	Publicly Owned	195	115	1,676	6.86
Hurricane Power Committee	Publicly Owned	3,462	2,582	33,700	7.66
Hyrum City Corporation	Publicly Owned	2,010	1,326	16,425	8.07
Kanab City Corporation	Publicly Owned	1,009	783	8,498	9.21
Kanosh Town Corporation	Publicly Owned	216	114	1,856	6.14
Kaysville City Corporation	Publicly Owned	6,045	4,694	59,507	7.89
Lehi City Corporation	Publicly Owned	6,188	4,284	49,792	8.60
Levan Town Corporation	Publicly Owned	286	180	2,654	6.78
Logan, City of	Publicly Owned	14,515	8,011	83,846	9.55
Manti, City of	Publicly Owned	1,038	560	8,624	6.49
Meadow Town Corporation	Publicly Owned	147	61	912	6.69
Monroe, City of	Publicly Owned	877	424	5,975	7.10
Moon Lake Electric Assn Inc.	Cooperative	9,563	5,426	85,017	6.38
Morgan City Corporation	Publicly Owned	1,033	624	8,363	7.46
Mt Pleasant, City of	Publicly Owned	1,525	860	9,970	8.63
Mt Wheeler Power, Inc.	Cooperative	199	140	1,723	8.13
Murray, City of	Publicly Owned	13,057	7,336	110,967	6.61
Navajo Tribal Utility Auth.	Publicly Owned	334	109	1,769	6.16
Nephi City Corporation	Publicly Owned	1,603	921	16,070	5.73
Oak City, Town of	Publicly Owned	240	138	2,375	5.81
Paragonah, Town of	Publicly Owned	230	157	1,642	9.56
Parowan City Corporation	Publicly Owned	1,170	637	8,850	7.20
Payson City Corporation	Publicly Owned	4,578	3,670	43,520	8.43
Price Municipal Corporation	Publicly Owned	3,300	1,563	22,900	6.83
Provo City Corporation	Publicly Owned	28,153	15,946	213,901	7.45
Raft River Rural Elec Coop Inc.	Cooperative	361	281	4,232	6.64
Salem City Corporation	Publicly Owned	1,339	963	14,384	6.69
Santa Clara, City of	Publicly Owned	1,525	1,788	21,362	8.37
Spanish Fork City Corporation	Publicly Owned	6,710	4,181	51,953	8.05
Spring City Corporation	Publicly Owned	424	275	2,666	10.32
Springville, City of	Publicly Owned	7,394	5,486	57,265	9.58
St George, City of	Publicly Owned	17,803	13,020	210,792	6.18
Strawberry Electric Serv. Dist.	Publicly Owned	2,573	2,946	30,153	9.77
Washington, City of	Publicly Owned	3,864	2,299	32,592	7.05
Wells Rural Electric Co.	Cooperative	523	433	5,287	8.19
State Total		799,194	471,282	6,938,291	6.79

Source: Form EIA-861

Table 5.26 Electric Utilities Serving the Commercial Sector in Utah, 2002

Electric Utility	Class of Ownership	Customers	Revenue	Sales	Average Revenue
			Thousand dollars	Thousand kWh	Cents per kWh
Utah Power	Investor-Owned	64,571	339,606	6,517,053	5.21
Non-Utah Power		27,532	134,672	1,945,940	7.64
Beaver City Corporation	Publicly Owned	242	793	10,998	7.21
Blanding, City of	Publicly Owned	279	737	10,365	7.11
Bountiful City, City of	Publicly Owned	1,166	3,849	60,027	6.41
Bridger Valley Elec Assn, Inc.	Cooperative	160	329	4,055	8.11
Brigham City Corporation	Publicly Owned	774	2,629	44,793	5.87
Dixie Escalante R E A, Inc.	Cooperative	587	2,173	40,863	5.32
Empire Electric Assn, Inc.	Cooperative	267	686	8,513	8.06
Enterprise, City of	Publicly Owned	47	143	1,717	8.33
Ephraim, City of	Publicly Owned	201	1,244	16,027	7.76
Fairview City Corporation	Publicly Owned	65	128	1,183	10.82
Fillmore City Corporation	Publicly Owned	239	1,542	21,604	7.14
Flowell Electric Assn, Inc.	Cooperative	88	120	2,115	5.67
Garkane Energy Coop, Inc.	Cooperative	791	2,327	30,733	7.57
Heber Light & Power Company	Publicly Owned	961	3,608	44,379	8.13
Helper, City of	Publicly Owned	49	192	3,388	5.67
Holden, Town of	Publicly Owned	5	18	250	7.20
Hurricane Power Committee	Publicly Owned	458	1,167	12,520	9.32
Hyrum City Corporation	Publicly Owned	130	762	11,713	6.51
Kanab City Corporation	Publicly Owned	363	851	10,290	8.27
Kanosh Town Corporation	Publicly Owned	18	17	161	10.56
Kaysville City Corporation	Publicly Owned	521	2,389	33,723	7.08
Lehi City Corporation	Publicly Owned	421	9,626	104,173	9.24
Logan, City of	Publicly Owned	1,918	10,638	153,204	6.94
Manti, City of	Publicly Owned	112	150	2,246	6.68
Meadow Town Corporation	Publicly Owned	10	21	283	7.42
Monroe, City of	Publicly Owned	50	222	3,051	7.28
Moon Lake Electric Assn Inc.	Cooperative	2,794	12,954	189,199	6.85
Morgan City Corporation	Publicly Owned	216	394	5,494	7.17
Mt Pleasant, City of	Publicly Owned	158	468	5,884	7.95
Mt Wheeler Power, Inc.	Cooperative	78	99	1,202	8.24
Murray, City of	Publicly Owned	2,757	14,999	244,972	6.12
Navajo Tribal Utility Auth.	Publicly Owned	86	485	5,770	8.41
Nephi City Corporation	Publicly Owned	285	2,485	21,590	11.51
Oak City, Town of	Publicly Owned	10	17	300	5.67
Parowan City Corporation	Publicly Owned	116	220	2,750	8.00
Payson City Corporation	Publicly Owned	306	3,604	36,527	9.87
Price Municipal Corporation	Publicly Owned	455	2,449	44,901	5.45
Provo City Corporation	Publicly Owned	4,585	23,014	367,429	6.26
Raft River Rural Elec Coop Inc.	Cooperative	31	25	460	5.43
Salem City Corporation	Publicly Owned	67	387	4,125	9.38
Santa Clara, City of	Publicly Owned	50	112	1,334	8.40
Spanish Fork City Corporation	Publicly Owned	963	4,510	65,590	6.88
Spring City Corporation	Publicly Owned	27	10	100	10.00
Springville, City of	Publicly Owned	669	3,476	35,630	9.76
St George, City of	Publicly Owned	3,183	15,941	240,872	6.62
Strawberry Electric Serv. Dist.	Publicly Owned	418	827	7,473	11.07
Washington, City of	Publicly Owned	214	1,231	22,839	5.39
Wells Rural Electric Co.	Cooperative	142	604	9,125	6.62
State Total		92,103	474,278	8,462,993	5.60

Source: Form EIA-861

Table 5.27 Electric Utilities Serving the Industrial Sector in Utah, 2002

Electric Utility	Class of Ownership	Customers	Revenue	Sales	Average Revenue
			Thousand dollars	Thousand kWh	Cents per kWh
Utah Power	Investor-Owned	8,249	236,015	6,403,497	3.69
Non-Utah Power		375	33,294	615,913	6.32
Beaver City Corporation	Publicly Owned	1	58	821	7.06
Bountiful City, City of	Publicly Owned	1	2,217	47,944	4.62
Brigham City Corporation	Publicly Owned	2	1,847	44,187	4.18
Dixie Escalante R E A, Inc.	Cooperative	184	1,542	33,611	4.59
Flowell Electric Assn, Inc.	Cooperative	1	9	33	na
Garkane Energy Coop, Inc.	Cooperative	1	1,265	22,299	5.67
Hurricane Power Committee	Publicly Owned	35	1,230	14,020	8.77
Hyrum City Corporation	Publicly Owned	1	1,558	36,610	4.26
Kanab City Corporation		2	20	244	8.20
Kaysville City Corporation	Publicly Owned	1	75	998	7.52
Logan, City of	Publicly Owned	7	4,645	86,021	5.40
Meadow Town Corporation	Publicly Owned	2	5	125	4.00
Moon Lake Electric Assn Inc.	Cooperative	7	3,021	46,642	6.48
Mt Wheeler Power, Inc.	Cooperative	2	48	716	6.70
Nephi City Corporation	Publicly Owned	1	169	2,712	6.23
Provo City Corporation	Publicly Owned	1	5,161	120,392	4.29
Raft River Rural Elec Coop Inc.	Cooperative	10	61	1,412	4.32
Spanish Fork City Corporation	Publicly Owned	8	2,082	39,883	5.22
Spring City Corporation	Publicly Owned	10	13	112	11.61
Springville, City of	Publicly Owned	85	7,621	108,104	7.05
Strawberry Electric Serv. Dist.	Publicly Owned	9	281	3,042	9.24
Washington, City of	Publicly Owned	1	18	240	7.50
Wells Rural Electric Co.	Cooperative	3	348	5,745	6.06
State Total		8,624	269,309	7,019,410	3.84

Source: Form EIA-861

Table 5.28 Electric Utilities Serving the "Other" Sector in Utah, 2002

Electric Utility	Class of Ownership	Customers	Revenue Thousand dollars	Sales	Average Revenue
				Thousand kWh	Cents per kWh
Utah Power	Investor-Owned	2,897	24,033	548,701	4.38
Non-Utah Power		1,720	15,637	297,793	7.30
Beaver City Corporation	Publicly Owned	38	226	3,645	6.20
Bountiful City, City of	Publicly Owned	279	2,331	34,157	6.82
Bridger Valley Elec Assn, Inc.	Cooperative	2	13	135	9.63
Dixie Escalante R E A, Inc.	Cooperative	59	88	479	18.37
Empire Electric Assn, Inc.	Cooperative	10	32	201	15.92
Enterprise, City of	Publicly Owned	28	48	492	9.76
Fairview City Corporation	Publicly Owned	15	47	487	9.65
Fillmore City Corporation	Publicly Owned	15	103	1,849	5.57
Flowell Electric Assn, Inc.	Cooperative	153	1,094	22,066	4.96
Garkane Energy Coop, Inc.	Cooperative	90	917	10,779	8.51
Hurricane Power Committee	Publicly Owned	1	11	1,090	1.01
Kanab City Corporation	Publicly Owned	3	301	3,190	9.44
Lehi City Corporation	Publicly Owned	68	942	9,587	9.83
Levan Town Corporation	Publicly Owned	3	34	909	3.74
Logan, City of	Publicly Owned	1	3,269	65,330	5.00
Manti, City of	Publicly Owned	41	272	3,992	6.81
Monroe, City of	Publicly Owned	34	49	945	5.19
Moon Lake Electric Assn Inc.	Cooperative	11	57	497	11.47
Morgan City Corporation	Publicly Owned	5	12	161	7.45
Mt Pleasant, City of	Publicly Owned	2	24	457	5.25
Mt Wheeler Power, Inc.	Cooperative	66	298	4,774	6.24
Murray, City of	Publicly Owned	124	445	9,065	4.91
Oak City, Town of	Publicly Owned	2	2	15	13.33
Parowan City Corporation	Publicly Owned	1	164	2,277	7.20
Provo City Corporation	Publicly Owned	2	23	4,838	0.48
Raft River Rural Elec Coop. Inc.	Cooperative	193	1,180	32,099	3.68
Santa Clara, City of	Publicly Owned	22	98	1,590	6.16
Spring City Corporation	Publicly Owned	15	18	389	4.63
Springville, City of	Publicly Owned	178	663	5,846	11.34
St George, City of	Publicly Owned	127	1,214	16,043	7.57
Strawberry Electric Serv. Dist.	Publicly Owned	51	252	3,360	7.50
Washington, City of	Publicly Owned	73	185	5,359	3.45
Wells Rural Electric Co.	Cooperative	3	15	170	8.82
Western Area Power Administration	Federal	5	1,210	51,520	2.35
State Total		4,617	39,670	846,494	4.69

Source: Form EIA-861

Note: "Other" refers to customers who do not clearly fit in the residential, commercial, or industrial sectors. "Other" customers are often government buildings or public facilities, irrigation districts (that are not also electric utilities), individual irrigation customers (mostly for cooperative respondents), electrified rail, or places of worship.

RENEWABLE RESOURCES

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Table 6.1 Total Renewable Net Generation by Source and State, 2001
 Megawatthours

Rank (by Percent Renewable)	State	Geothermal	Conventional Hydroelectric	Biomass			Solar	Wind	Total Renewable Generation	Total State Generation	Percent Renewable	Percent Renewable (excluding Hydro.)	
				Wood / Wood Waste			MSW / Landfill Gas	Other^					
1	Idaho	--	7,223,127	533,333	--	--	--	--	7,756,460	9,346,940	83.0	5.7	
2	Washington	--	54,733,892	1,065,093	174,845	47,444	--	--	56,021,274	83,048,665	67.5	1.6	
3	Oregon	--	28,644,556	701,120	87,408	--	--	88,587	29,521,671	45,051,910	65.5	1.9	
4	South Dakota	--	3,431,865	--	--	--	--	871	3,432,736	7,400,743	46.4	*	
5	Maine	--	2,645,123	3,530,143	399,898	158,376	--	--	6,733,540	19,564,815	34.4	20.9	
6	Montana	--	6,613,472	65,425	--	--	--	--	6,678,897	24,232,483	27.6	0.3	
7	California	12,181,295	25,541,782	3,323,777	1,860,588	409,557	542,271	3,499,738	47,359,008	198,596,086	23.8	11.0	
8	Vermont	--	884,211	370,408	--	--	--	12,133	1,266,752	5,480,612	23.1	7.0	
9	Alaska	--	1,345,665	--	--	--	--	950	1,346,615	6,743,770	20.0	*	
10	New York	--	23,083,943	502,686	2,087,144	--	--	20,540	25,694,313	143,914,537	17.9	1.8	
11	New Hampshire	--	990,581	858,769	225,933	--	--	--	2,075,283	15,074,629	13.8	7.2	
12	Nevada	1,199,874	2,513,722	--	--	--	--	--	3,713,596	33,875,970	11.0	3.5	
13	Alabama	--	8,356,382	4,172,256	3,353	21,094	--	--	12,553,085	125,345,122	10.0	3.3	
14	Arkansas	--	2,548,251	1,504,696	--	7,375	--	--	4,060,322	47,192,036	8.6	3.2	
15	Arizona	--	7,623,565	--	33,601	5,347	489	--	7,663,002	89,911,270	8.5	*	
16	Tennessee	--	6,946,530	779,426	49,219	--	--	--	7,775,175	96,221,985	8.1	0.9	
17	Massachusetts	--	702,504	129,768	1,929,386	24,184	--	--	2,785,842	38,478,433	7.2	5.4	
18	Hawaii	206,592	100,750	--	401,526	55,657	--	2,125	766,650	10,633,095	7.2	6.3	
19	Connecticut	--	286,373	--	1,566,661	211,403	--	--	2,064,437	30,490,640	6.8	5.8	
20	Minnesota	--	831,622	574,709	780,011	7,041	--	897,017	3,090,400	48,523,228	6.4	4.7	
21	Wisconsin	--	2,056,245	705,354	401,147	86,121	--	72,284	3,321,151	58,763,433	5.7	2.2	
22	Georgia	--	2,596,425	2,974,339	28,759	6,213	--	--	5,605,736	118,316,772	4.7	2.5	
23	Oklahoma	--	2,344,690	230,696	--	--	--	--	2,575,386	55,249,448	4.7	0.4	
24	North Dakota	--	1,332,076	--	--	7,665	--	--	1,339,741	30,332,072	4.4	0.0	
25	Virginia	--	1,014,222	1,148,106	990,877	4,896	--	--	3,158,101	74,104,744	4.3	2.9	
26	Kentucky	--	3,855,508	9,552	--	--	--	--	3,865,060	95,417,624	4.1	*	
27	Louisiana	--	732,217	2,640,656	--	106,892	--	--	3,479,765	87,894,382	4.0	3.1	
28	Nebraska	--	1,124,122	--	--	16,721	--	2,630	1,143,473	30,485,214	3.8	0.1	
29	North Carolina	--	2,595,708	1,642,330	129,391	8,889	--	--	4,376,318	117,495,853	3.7	1.5	
30	Maryland	--	1,183,518	11,939	608,749	29	--	--	1,804,235	49,062,340	3.7	1.3	
31	Michigan	--	1,561,918	1,700,261	742,780	64,222	--	280	4,069,461	111,845,612	3.6	2.2	
32	Iowa	--	845,153	--	96,733	15,465	--	487,864	1,445,215	40,658,513	3.6	1.5	
33	Colorado	--	1,494,704	--	--	64,204	--	48,640	1,607,548	46,876,013	3.4	0.2	
34	Wyoming	--	879,111	--	--	--	--	365,162	1,244,273	44,776,941	2.8	0.8	
35	Florida	--	147,718	1,828,239	2,989,718	225,325	--	--	5,191,000	190,945,341	2.7	2.6	
36	Mississippi	--	--	1,432,117	--	146	--	--	1,432,263	53,446,452	2.7	2.7	
37	South Carolina	--	1,225,443	866,107	49,202	537	--	--	2,141,289	89,158,988	2.4	1.0	
38	New Jersey	--	18,001	--	1,290,277	12,745	--	--	1,321,023	59,421,254	2.2	2.2	
39	Pennsylvania	--	1,650,004	596,736	2,019,472	34,412	--	11,174	4,311,798	196,576,594	2.2	1.4	
40	Utah ¹	185,989	508,407	--	9,642	--	--	--	704,038	35,886,998	2.0	0.5	
41	Missouri	--	1,104,135	--	--	62,427	--	--	1,166,562	79,544,875	1.5	0.1	
42	Rhode Island	--	3,143	--	103,616	--	--	--	106,759	7,501,894	1.4	1.4	
43	West Virginia	--	951,944	1,198	25,139	--	--	--	978,281	81,836,725	1.2	*	
44	Texas	--	1,200,331	897,605	51,151	58,815	-5	1,187,510	3,395,407	372,580,008	0.9	0.6	
45	New Mexico	--	237,320	--	--	18,652	--	--	255,972	33,611,642	0.8	0.1	
46	Ohio	--	510,785	403,072	27,888	--	--	--	941,745	142,261,810	0.7	0.3	
47	Indiana	--	570,692	--	126,252	4,264	--	--	701,208	122,569,679	0.6	0.1	
48	Illinois	--	144,029	--	640,677	87,389	--	--	872,095	179,249,272	0.5	0.4	
49	Kansas	--	25,561	--	--	--	--	39,832	65,393	44,748,522	0.1	0.1	
50	Delaware	--	--	--	--	--	--	--	--	6,807,686	--	--	
51	Dist. of Col.	--	--	--	--	--	--	--	--	123,239	--	--	
	Totals		13,773,750	216,961,046	35,199,916	19,931,043	1,833,507	542,755	6,737,337	294,979,354	3,736,676,909	7.9	2.1

Source: EIA, *Renewable Energy Annual, 2002*

*Less than 0.05%

¹Agriculture byproducts/crops, sludge waste, tires and other biomass, liquids and gases

¹EIA only records data from the Blundell Geothermal Plant and not the Cove Fort Plant. Cove Fort's generation data have been added to the overall geothermal total (data obtained from company interviews).

Table 6.2 U.S. Electricity Net Generation from Renewable Energy by End Use Sector and Source, 1998-2002
Megawatthours

Sector/Source	1998	1999	2000	2001	2002*
Total	400,424,069	398,959,030	356,478,569	294,946,110	347,450,482
Biomass	58,786,321	59,612,909	60,726,180	56,964,468	59,401,578
Wood/Wood Waste	36,338,385	37,040,734	37,594,866	35,199,916	36,543,764
MSW/Landfill Gas	19,930,526	20,072,515	20,304,943	19,931,044	20,180,962
Other Biomass [^]	2,517,410	2,499,660	2,826,371	1,833,508	2,676,851
Geothermal	14,773,918	14,827,013	14,093,158	13,740,503	13,357,034
Conventional Hydroelectric	323,335,661	319,536,028	275,572,597	216,961,046	263,641,906
Solar	502,473	495,082	493,375	542,755	543,853
Wind	3,025,696	4,487,998	5,593,261	6,737,337	10,506,112
Commercial	2,493,233	2,527,117	2,111,620	1,548,109	1,862,248
Biomass	2,372,766	2,412,455	2,011,871	1,481,627	1,777,785
Wood/Wood Waste	37,716	19,671	26,958	17,626	11,519
MSW/Landfill Gas	2,020,758	2,041,933	1,601,152	1,181,827	1,428,042
Other Biomass [^]	314,292	350,851	383,761	282,174	338,224
Conventional Hydroelectric	120,468	114,663	99,749	66,482	84,463
Industrial	33,920,824	33,505,006	33,626,303	30,848,324	33,268,441
Biomass	28,572,251	28,746,698	29,491,148	27,703,056	29,243,521
Wood/Wood Waste	27,692,538	28,060,358	28,651,835	26,888,490	28,212,636
MSW/Landfill Gas	15,637	20,516	30,858	237,273	212,489
Other Biomass [^]	864,075	665,824	808,456	577,292	818,395
Conventional Hydroelectric	5,348,573	4,758,307	4,135,155	3,145,268	4,024,920
Electric Power	364,010,012	362,926,907	320,740,647	262,549,676	312,319,793
Biomass	27,841,304	28,453,756	29,223,160	27,779,786	28,380,272
Wood/Wood Waste	8,608,130	8,960,705	8,916,073	8,293,800	8,319,609
MSW/Landfill Gas	17,894,131	18,010,065	18,672,933	18,511,944	18,540,431
Other Biomass [^]	1,339,043	1,482,985	1,634,155	974,042	1,520,232
Geothermal	14,773,918	14,827,013	14,093,158	13,740,503	13,357,034
Conventional Hydroelectric	317,866,620	314,663,058	271,337,693	213,749,295	259,532,522
Solar	502,473	495,082	493,375	542,755	543,853
Wind	3,025,696	4,487,998	5,593,261	6,737,337	10,506,112

Source: EIA, *Renewable Energy Annual, 2002*

*Preliminary data

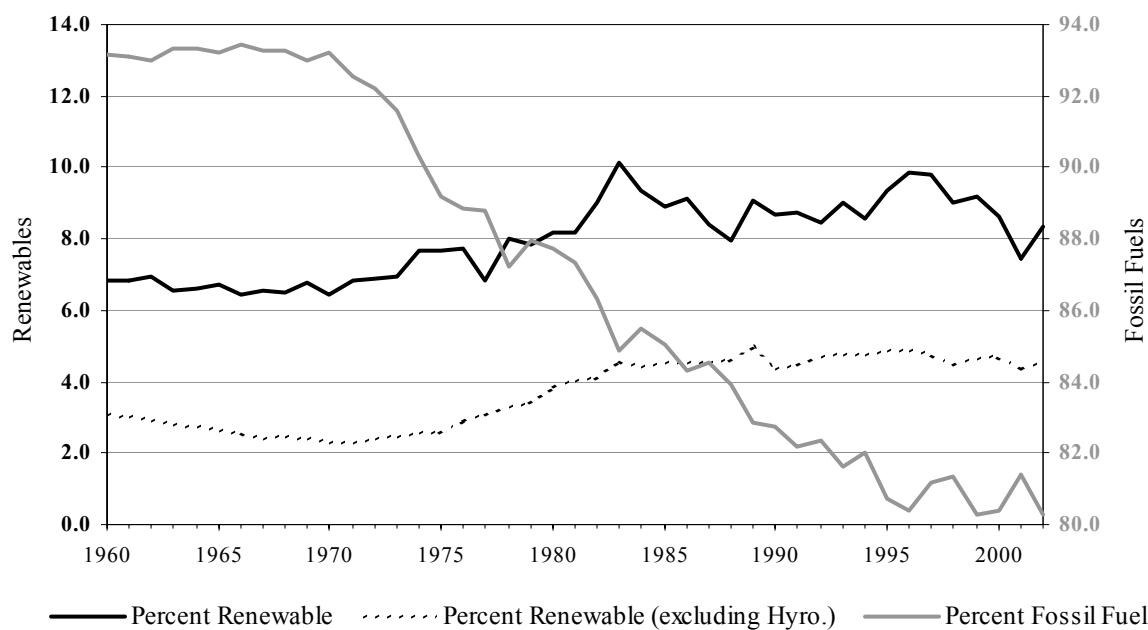
[^]Agriculture byproducts/crops, sludge waste, tires and other biomass, liquids and gases

Table 6.3 U.S. Renewable Energy Production by Source, 1960-2002
Trillion Btu

Year	Conventional Hydroelectric Power	Biomass (Wood, Waste, and Alcohol Fuels)	Geothermal	Solar	Wind	Total Renewables	Total Fossil Fuels	Overall Total (including Nuclear)	Percent Renewable (excluding Hydro.)	Percent Renewable	Percent Fossil Fuel
1960	1,608	1,320	1	na	na	2,929	39,869	42,804	3.1	6.8	93.1
1961	1,656	1,295	2	na	na	2,953	40,307	43,280	3.0	6.8	93.1
1962	1,816	1,300	2	na	na	3,119	41,732	44,877	2.9	7.0	93.0
1963	1,771	1,323	4	na	na	3,098	44,037	47,174	2.8	6.6	93.4
1964	1,886	1,337	5	na	na	3,228	45,789	49,056	2.7	6.6	93.3
1965	2,059	1,335	4	na	na	3,398	47,235	50,676	2.6	6.7	93.2
1966	2,062	1,369	4	na	na	3,435	50,035	53,534	2.6	6.4	93.5
1967	2,347	1,340	7	na	na	3,694	52,597	56,379	2.4	6.6	93.3
1968	2,349	1,419	9	na	na	3,778	54,306	58,225	2.5	6.5	93.3
1969	2,648	1,440	13	na	na	4,102	56,286	60,541	2.4	6.8	93.0
1970	2,634	1,431	11	na	na	4,076	59,186	63,501	2.3	6.4	93.2
1971	2,824	1,432	12	na	na	4,268	58,042	62,723	2.3	6.8	92.5
1972	2,864	1,503	31	na	na	4,398	58,938	63,920	2.4	6.9	92.2
1973	2,861	1,529	43	na	na	4,433	58,241	63,585	2.5	7.0	91.6
1974	3,177	1,540	53	na	na	4,769	56,331	62,372	2.6	7.6	90.3
1975	3,155	1,499	70	na	na	4,723	54,733	61,357	2.6	7.7	89.2
1976	2,976	1,713	78	na	na	4,768	54,723	61,602	2.9	7.7	88.8
1977	2,333	1,838	77	na	na	4,249	55,101	62,052	3.1	6.8	88.8
1978	2,937	2,038	64	na	na	5,039	55,074	63,137	3.3	8.0	87.2
1979	2,931	2,152	84	na	na	5,166	58,006	65,948	3.4	7.8	88.0
1980	2,900	2,485	110	na	na	5,494	59,008	67,241	3.9	8.2	87.8
1981	2,758	2,590	123	na	na	5,471	58,529	67,007	4.0	8.2	87.3
1982	3,266	2,615	105	na	na	5,985	57,458	66,574	4.1	9.0	86.3
1983	3,527	2,831	129	na	< 0.5	6,488	54,416	64,106	4.6	10.1	84.9
1984	3,386	2,880	165	< 0.5	< 0.5	6,431	58,849	68,832	4.4	9.3	85.5
1985	2,970	2,864	198	< 0.5	< 0.5	6,033	57,539	67,647	4.5	8.9	85.1
1986	3,071	2,841	219	< 0.5	< 0.5	6,132	56,575	67,087	4.6	9.1	84.3
1987	2,635	2,823	229	< 0.5	< 0.5	5,687	57,167	67,608	4.5	8.4	84.6
1988	2,334	2,937	217	< 0.5	< 0.5	5,489	57,875	68,951	4.6	8.0	83.9
1989	2,837	3,062	317	55	19	6,294	57,468	69,364	5.0	9.1	82.8
1990	3,046	2,662	336	60	24	6,133	58,529	70,729	4.4	8.7	82.8
1991	3,016	2,702	346	63	27	6,158	57,829	70,362	4.5	8.8	82.2
1992	2,617	2,847	349	64	30	5,907	57,590	69,933	4.7	8.4	82.4
1993	2,892	2,804	364	66	31	6,157	55,736	68,262	4.8	9.0	81.7
1994	2,683	2,939	338	69	36	6,065	57,952	70,676	4.8	8.6	82.0
1995	3,205	3,068	294	70	33	6,669	57,440	71,156	4.9	9.4	80.7
1996	3,590	3,127	316	71	33	7,137	58,281	72,472	4.9	9.8	80.4
1997	3,640	3,006	325	70	34	7,075	58,758	72,389	4.7	9.8	81.2
1998	3,297	2,835	328	70	31	6,561	59,204	72,787	4.5	9.0	81.3
1999	3,268	2,885	331	69	46	6,599	57,505	71,652	4.6	9.2	80.3
2000	2,811	2,907	317	66	57	6,158	57,254	71,218	4.7	8.6	80.4
2001	2,201	2,678	311	64	59	5,324	58,109	71,372	4.4	7.5	81.4
2002	2,668	2,756	304	85	85	5,899	56,857	70,812	4.6	8.3	80.3

Source: EIA, *Annual Energy Review, 2002*

Figure 6.1 Percentage of U.S. Renewable and Fossil Fuel Energy Production, 1960-2002



Source: EIA, *Annual Energy Review, 2002*

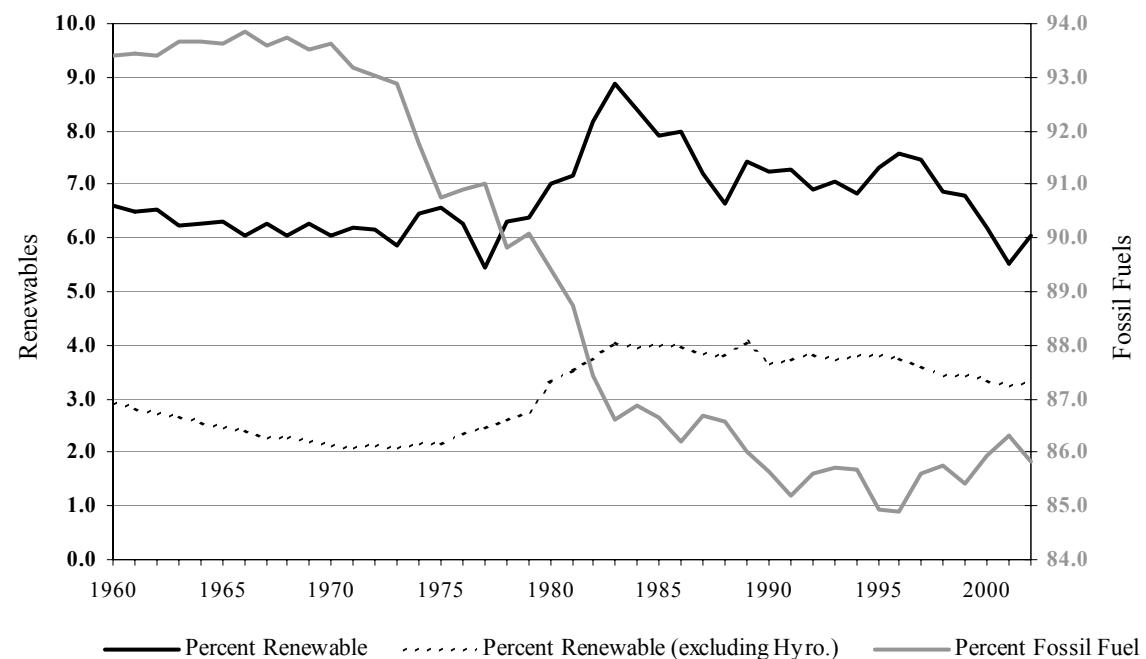
Table 6.4 U.S. Renewable Energy Consumption by Source, 1960-2002
Trillion Btu

Year	Conventional Hydroelectric Power	Biomass			Geothermal	Solar	Wind	Total Renewables	Total Fossil Fuels	Overall Total (including Nuclear)	Percent Renewable (excluding Hydro.)	Percent Renewable	Percent Fossil Fuel
		Wood	Waste	Alcohol Fuels									
1960	1,657	1,320	na	na	1	na	na	2,978	42,137	45,120	2.9	6.6	93.4
1961	1,680	1,295	na	na	2	na	na	2,977	42,758	45,755	2.8	6.5	93.4
1962	1,822	1,300	na	na	2	na	na	3,124	44,681	47,832	2.7	6.5	93.4
1963	1,772	1,323	na	na	4	na	na	3,099	46,509	49,647	2.7	6.2	93.7
1964	1,907	1,337	na	na	5	na	na	3,249	48,543	51,831	2.6	6.3	93.7
1965	2,058	1,335	na	na	4	na	na	3,397	50,577	54,016	2.5	6.3	93.6
1966	2,073	1,369	na	na	4	na	na	3,446	53,514	57,024	2.4	6.0	93.8
1967	2,344	1,340	na	na	7	na	na	3,691	55,127	58,906	2.3	6.3	93.6
1968	2,342	1,419	na	na	9	na	na	3,770	58,502	62,415	2.3	6.0	93.7
1969	2,659	1,440	na	na	13	na	na	4,112	61,362	65,628	2.2	6.3	93.5
1970	2,654	1,429	2	na	11	na	na	4,096	63,522	67,858	2.1	6.0	93.6
1971	2,861	1,430	2	na	12	na	na	4,305	64,596	69,314	2.1	6.2	93.2
1972	2,944	1,501	2	na	31	na	na	4,478	67,696	72,758	2.1	6.2	93.0
1973	2,861	1,527	2	na	43	na	na	4,433	70,316	75,708	2.1	5.9	92.9
1974	3,177	1,538	2	na	53	na	na	4,770	67,906	73,991	2.2	6.4	91.8
1975	3,155	1,497	2	na	70	na	na	4,724	65,355	71,999	2.2	6.6	90.8
1976	2,976	1,711	2	na	78	na	na	4,767	69,104	76,012	2.4	6.3	90.9
1977	2,333	1,837	2	na	77	na	na	4,249	70,989	78,000	2.5	5.4	91.0
1978	2,937	2,036	1	na	64	na	na	5,038	71,856	79,986	2.6	6.3	89.8
1979	2,931	2,150	2	na	84	na	na	5,167	72,892	80,903	2.8	6.4	90.1
1980	2,900	2,483	2	na	110	na	na	5,495	69,984	78,289	3.3	7.0	89.4
1981	2,758	2,495	88	7	123	na	na	5,471	67,750	76,335	3.6	7.2	88.8
1982	3,266	2,477	119	19	105	na	na	5,986	64,036	73,234	3.7	8.2	87.4
1983	3,527	2,639	157	35	129	na	< 0.5	6,487	63,290	73,066	4.1	8.9	86.6
1984	3,386	2,629	208	43	165	< 0.5	< 0.5	6,431	66,617	76,693	4.0	8.4	86.9
1985	2,970	2,576	236	52	198	< 0.5	< 0.5	6,032	66,221	76,417	4.0	7.9	86.7
1986	3,071	2,518	263	60	219	< 0.5	< 0.5	6,131	66,148	76,722	4.0	8.0	86.2
1987	2,635	2,465	289	69	229	< 0.5	< 0.5	5,687	68,626	79,156	3.9	7.2	86.7
1988	2,334	2,552	315	70	217	< 0.5	< 0.5	5,488	71,660	82,774	3.8	6.6	86.6
1989	2,837	2,637	354	71	317	55	22	6,293	73,023	84,886	4.1	7.4	86.0
1990	3,046	2,191	408	63	337	60	29	6,134	72,460	84,605	3.6	7.3	85.6
1991	3,016	2,190	440	73	351	63	31	6,164	71,996	84,522	3.7	7.3	85.2
1992	2,617	2,290	473	83	368	64	30	5,925	73,519	85,866	3.9	6.9	85.6
1993	2,892	2,227	479	97	382	66	31	6,174	75,055	87,578	3.7	7.0	85.7
1994	2,683	2,315	515	109	366	69	36	6,093	76,480	89,248	3.8	6.8	85.7
1995	3,205	2,420	531	117	312	70	33	6,688	77,488	91,221	3.8	7.3	84.9
1996	3,590	2,467	577	84	329	71	33	7,151	79,979	94,224	3.8	7.6	84.9
1997	3,640	2,350	551	106	325	70	34	7,076	81,086	94,727	3.6	7.5	85.6
1998	3,297	2,175	542	105	328	70	31	6,549	81,592	95,135	3.4	6.9	85.8
1999	3,268	2,224	540	110	331	69	46	6,587	82,650	96,763	3.4	6.8	85.4
2000	2,811	2,257	511	126	317	66	57	6,145	85,001	98,927	3.4	6.2	85.9
2001	2,201	2,017	514	133	311	65	68	5,310	83,131	96,307	3.2	5.5	86.3
2002*	2,668	2,031	550	156	304	64	106	5,881	83,711	97,551	3.3	6.0	85.8

Source: EIA, *Annual Energy Review, 2002*

*Preliminary data

Figure 6.2 Percentage of U.S. Renewable and Fossil Fuel Energy Consumption, 1960-2002



Source: EIA, *Annual Energy Review, 2002*

Table 6.5

U.S. Renewable Energy Consumption by Energy Use Sector and Energy Source, 1998-2002
Trillion Btu

Sector/Source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Total	6,152	6,150	5,902	6,148	6,053	6,657	7,129	7,065	6,549	6,587	6,145	5,310	5,881
Biomass	2,681	2,694	2,842	2,795	2,928	3,056	3,120	2,996	2,823	2,873	2,461	2,232	2,297
Wood	2,191	2,190	2,290	2,228	2,315	2,420	2,467	2,350	2,175	2,224	2,257	2,017	2,032
Waste^	408	440	473	479	515	531	577	551	542	540	511	514	550
Alcohol Fuels	82	65	78	88	97	105	76	96	105	110	126	133	156
Geothermal	336	346	349	364	338	294	316	325	328	331	24	25	304
Conventional Hydroelectric	3,046	3,016	2,617	2,892	2,683	3,205	3,590	3,640	3,205	3,117	2,625	2,201	2,668
Solar	60	63	64	66	69	70	71	70	65	64	61	65	58
Wind	29	31	30	31	36	33	33	34	0	0	0	1	2
Residential	642	677	711	616	607	667	667	506	459	486	503	476	419
Biomass	581	613	645	548	537	596	595	433	387	414	433	407	350
Wood	581	613	645	548	537	596	595	433	387	414	433	407	350
Geothermal	6	6	6	7	6	7	7	8	8	9	9	9	10
Solar	56	58	60	62	64	65	65	65	65	64	61	60	58
Commercial	71	72	81	84	86	92	110	113	111	114	109	89	98
Biomass	67	68	76	79	81	86	103	107	102	106	100	80	88
Wood	39	41	44	46	46	46	50	49	48	52	53	41	41
Waste^	28	26	32	33	35	40	53	58	54	54	47	39	47
Geothermal	3	3	3	3	4	5	5	6	7	7	8	8	9
Conventional Hydroelectric	1	1	1	1	1	1	1	1	1	1	1	1	1
Industrial	1,667	1,626	1,672	1,697	1,844	1,905	1,971	1,976	1,841	1,843	1,828	1,630	1,724
Biomass	1,634	1,595	1,640	1,666	1,779	1,847	1,907	1,915	1,784	1,791	1,781	1,593	1,678
Wood	1,442	1,410	1,461	1,484	1,580	1,652	1,683	1,731	1,603	1,620	1,636	1,443	1,506
Waste^	192	185	179	181	199	195	224	184	180	171	145	150	172
Geothermal	2	2	2	2	3	3	3	3	3	4	4	5	5
Conventional Hydroelectric	31	30	31	30	62	55	61	58	55	49	42	32	41
Transportation													
Alcohol Fuels	82	65	78	88	97	105	76	96	105	110	126	133	156

Table 6.5 Cont.

Sector/Source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Electric Power	3,689	3,710	3,360	3,662	3,420	3,889	4,305	4,375	4,032	4,034	3,579	2,982	3,485
Electric Utilities	3,151	3,114	2,712	2,953	2,714	3,173	3,553	3,620	3,279	3,123	2,607	2,031	2,464
Biomass	22	21	22	21	21	17	20	20	21	20	21	19	25
Wood	8	8	8	9	8	7	8	8	7	7	7	6	8
Waste^	13	14	13	11	13	10	12	13	13	13	14	13	16
Geothermal	181	170	169	158	145	99	110	115	109	36	3	3	4
Conventional Hydroelectric	2,948	2,923	2,521	2,774	2,549	3,056	3,423	3,485	3,149	3,067	2,582	2,007	2,434
Solar	0	0	0	0	0	0	0	0	0	0	0	0	0
Wind	0	0	0	0	0	0	0	0	0	0	0	1	2
Independent Power Producers	538	596	648	709	705	716	752	754	753	910	972	951	1,021
Biomass	295	333	381	394	413	405	418	426	424	433	432	432	441
Wood	120	118	132	141	144	119	130	129	129	131	127	121	127
Waste^	175	215	249	253	269	286	288	296	294	302	305	311	315
Geothermal	145	165	168	193	180	181	191	194	202	276	293	286	277
Conventional Hydroelectric	66	62	65	87	72	93	104	96	92	151	185	162	193
Solar	4	5	4	5	5	5	5	5	5	5	5	5	5
Wind	29	31	30	31	36	33	33	34	31	46	57	67	104

Source: EIA, *Renewable Energy Annual, 2002*

*Preliminary data

^Municipal solid waste, landfill gases, agriculture byproducts/crops, sludge waste, tires, and other biomass solids, liquids, and gases

Table 6.6a Estimated Renewable Energy Consumption in Utah, 1980-2002
 Physical Units

Year	Residential		Industrial		Electric Utility ¹	
	Biofuels	Solar	Biofuels [^]	Hydroelectric	Geothermal ²	Hydroelectric
	Thousand cords	Million kilowatthours	Thousand Cords	Million kilowatthours	Million kilowatthours	Million kilowatthours
1980	189	--	47	--	--	821
1981	191	--	54	--	--	623
1982	206	--	47	--	--	1,024
1983	204	--	54	--	--	1,394
1984	276	--	54	--	38	1,391
1985	269	--	54	--	109	1,019
1986	262	--	70	--	171	1,413
1987	135	--	70	--	127	893
1988	141	--	70	--	174	593
1989	146	--	31	--	173	562
1990	148	n	16	23	152	508
1991	156	n	16	23	186	627
1992	164	n	16	23	233	602
1993	158	n	16	42	187	860
1994	155	n	16	34	233	750
1995	172	n	16	42	168	969
1996	171	n	23	30	223	1,049
1997	177	n	23	14	204	1,344
1998	160	n	23	16	195	1,315
1999	171	n	124	8	194	1,255
2000	179	n	132	8	196	751
2001	178*	na	na	na	195	508
2002	180*	na	na	na	214	476

Table 6.6b Estimated Renewable Energy Consumption in Utah, 1980-2002
 Trillion Btu

Year	Residential		Industrial		Electric Utility ¹		Total
	Biofuels	Solar	Biofuels	Hydroelectric	Geothermal	Hydroelectric	
1980	3.8	--	0.6	--	--	8.5	12.9
1981	3.8	--	0.7	--	--	6.5	11.0
1982	4.1	--	0.6	--	--	10.6	15.3
1983	4.1	--	0.7	--	--	14.5	19.3
1984	5.5	--	0.7	--	0.8	14.4	21.4
1985	5.4	--	0.7	--	2.3	10.6	19.0
1986	5.2	--	0.9	--	3.6	14.7	24.3
1987	2.7	--	0.9	--	2.7	9.3	15.5
1988	2.8	--	0.9	--	3.7	6.1	13.5
1989	2.9	--	0.4	--	3.6	5.8	12.8
1990	3.0	n	0.2	0.2	3.2	5.3	11.9
1991	3.1	n	0.2	0.2	3.9	6.5	13.9
1992	3.3	n	0.2	0.2	4.9	6.2	14.8
1993	3.2	n	0.2	0.4	3.9	8.9	16.7
1994	3.1	0.1	0.2	0.4	4.9	7.8	16.5
1995	3.4	0.1	0.2	0.4	3.5	10.0	17.7
1996	3.4	0.1	0.3	0.3	4.7	10.9	19.7
1997	3.5	0.1	0.3	0.1	4.3	13.9	22.2
1998	3.2	0.1	0.3	0.2	4.1	13.6	21.5
1999	3.4	n	1.6	0.1	4.1	13.0	22.2
2000	3.6	n	1.7	0.1	4.1	7.8	17.3
2001	3.6*	na	na	na	4.1	5.3	na
2002	3.6*	na	na	na	4.5	4.9	na

Source: EIA, State Energy Data Report

¹Data from EIA Form-906

²EIA only records data from the Blundell Geothermal Plant and not the Cove Fort Plant. Cove Fort's consumption data have been added to the overall geothermal total for 1992 to present (data obtained from company interviews).

n = less than 1 million kilowatthours or less than 0.1 trillion Btu

[^]Industrial biofuel numbers estimated using the conversion factor: 0.0129 trillion Btu / thousand cords (this is an average of several woods burned in Utah)

*UEO estimations

Table 6.7 Renewable Energy Facilities in the State of Utah, 2002

Technology	# of Facilities	Capacity (kW)
Biomass	2	5,600
Geothermal	2	39,300
Solar	25	265
Wind	3	276
Hydro	71	288,195
Total	103	333,636

Technology	Owner / Operator	Fuel Type	Plant Name / Location / Use	Capacity (kW)
Biomass	Davis County SWM and Energy Recovery	Municipal Solid Waste (Incl. Industrial, Medical)	Davis County SWM and Energy Recovery / Layton	1,600
Biomass	Garkane Power Assn. Inc.	Timber Residues (Milling And Logging Residues)	Kaibab Industries	4,000
Geothermal	PacifiCorp	Geothermal Steam	Blundell	26,100
Geothermal	Utah Municipal Power Agency (UMPA)	Geothermal Steam	Cove Fort	13,200
Photovoltaic	Confidential	Solar	MSR Residential / Vernal	1
Photovoltaic	Arches National Park	Solar	Devil's Garden Campground	5.6
Photovoltaic	Bryce Canyon National Park	Solar	Water Pumping	1.5
Photovoltaic	Bryce Canyon National Park	Solar	Pressurize Water System	0.48
Photovoltaic	Canyonlands National Park	Solar	Hans Flat Facility	7.2
Photovoltaic	Dinosaur National Monument	Solar	Ranger Cabin	0.384
Photovoltaic	Glen Canyon National Recreation Area	Solar	Dangling Rope Facility	160
Photovoltaic	Natural Bridges National Monument	Solar	Monument Facilities	60
Photovoltaic	Zion National Park	Solar	Visitor Center - grid tied	7.2
Photovoltaic	Zion National Park	Solar	Ranger Cabin	0.384
Photovoltaic	Zion National Park	Solar	Ranger Cabin	0.384
Photovoltaic	Cal Black Airport	Solar	Airport Facilities	6
Photovoltaic	Antelope Island State Park	Solar	Garr Ranch Facility	1.5
Photovoltaic	Antelope Island State Park	Solar	Marina Lighting	0.03
Photovoltaic	Antelope Island State Park	Solar	Radio Repeater	0.09
Photovoltaic	Cunningham Ranch	Solar	Wildlife Education Center	2.4
Photovoltaic	Dead Horse Point State Park	Solar	Pressurize Water System - Point System	0.33
Photovoltaic	Dead Horse Point State Park	Solar	Pressurize Water System - Group Site	0.33
Photovoltaic	Goblin Valley State Park	Solar	Employee Housing	3.6
Photovoltaic	Goblin Valley State Park	Solar	Water Pumping	4
Photovoltaic	Monte Cristo Snow Cat Shed	Solar	Lighting, Power Tools, Radios	1.8
Photovoltaic	Salt Creek Waterfowl Management Area	Solar	Water Pumping	0.26
Photovoltaic	Snow Canyon State Park	Solar	Entrance Station	0.45
Photovoltaic	Yuba Lake State Park	Solar	Cabana Lighting	0.2
Photovoltaic	Yuba Lake State Park	Solar	Radio Repeater	0.025
Wind	U.S. Department of Defense	Wind	Camp Williams - grid tied	225
Wind	Fox	Wind	Fox / Lehi	18
Wind	Utah Municipal Power Agency	Wind	UMPA Wind Project / Spanish Fork	33
Hydro*	Arizona Micro-Porcupine	Water	Arizona Micro-Porcupine	566
Hydro	Beaver City Mun. Elec. Light and Water	Water	Beaver #3	650
Hydro	Beaver City Mun. Elec. Light and Water	Water	Beaver Lower	280
Hydro	Beaver City Mun. Elec. Light and Water	Water	Beaver Upper	630
Hydro*	BMB Enterprises Inc.	Water	Granite Creek	350

Table 6.7 Cont.

Technology	Owner	Fuel Type	Plant Name	Capacity (kW)
Hydro*	Bountiful City Light and Power	Water	East Canyon Dam	2,499
Hydro	Bountiful City Light and Power	Water	Echo Dam	4,500
Hydro	Bountiful City Light and Power	Water	Pine View Dam	1,800
Hydro	Brigham City Light and Power	Water	Box Elder	500
Hydro	Brigham City Light and Power	Water	Brigham City	1,200
Hydro	Bureau of Reclamation	Water	Deer Creek	4,960
Hydro	Bureau of Reclamation	Water	Flaming Gorge	151,500
Hydro*	City of North Logan	Water	Green Canyon	450
Hydro*	Douglass George	Water	Deep Creek	125
Hydro	Ephraim City Power Dept.	Water	Hydro No. 4 - Masen Plant	120
Hydro	Ephraim City Power Dept.	Water	Hydro Plant No. 1	200
Hydro	Ephraim City Power Dept.	Water	Hydro Plant No. 3	2,890
Hydro	Garkane Power Assn. Inc.	Water	Boulder Hydroelectric	4,500
Hydro	Garkane Power Assn. Inc.	Water	Lower Boulder	700
Hydro	Heber Light and Power Dept.	Water	Lake Creek	1,500
Hydro	Heber Light and Power Dept.	Water	Snake Creek	800
Hydro	Hyrum City Corp.	Water	Hyrum	500
Hydro	Levan Mun. Elec. Light System	Water	Cobble Rock	110
Hydro	Levan Mun. Elec. Light System	Water	Pigeon Creek	800
Hydro	Logan City Mun. Light and Power	Water	Logan 2	6,600
Hydro	Logan City Mun. Light and Power	Water	Logan 3	2,100
Hydro	Manti Light and Power Company	Water	Manti Lower	1,200
Hydro	Manti Light and Power Company	Water	Manti Upper	1,600
Hydro	Monroe City Elec. Light Dept.	Water	Lower	250
Hydro	Monroe City Elec. Light Dept.	Water	Monroe Pumping Station	100
Hydro	Monroe City Elec. Light Dept.	Water	Upper	250
Hydro	Moon Lake Electric Assn. Inc.	Water	Uintah	1,200
Hydro	Moon Lake Electric Assn. Inc.	Water	Yellowstone	900
Hydro	Mt Pleasant Mun. Elec. And Power Dept.	Water	Lower	150
Hydro	Mt Pleasant Mun. Elec. And Power Dept.	Water	Lower Debris Basin	1,250
Hydro	Mt Pleasant Mun. Elec. And Power Dept.	Water	Pressure Reducing Station	225
Hydro	Mt Pleasant Mun. Elec. And Power Dept.	Water	Upper	180
Hydro	Murray City Power Dept.	Water	Little Cottonwood Creek	4,900
Hydro	Nephi Municipal Electric Dept.	Water	Bradley	200
Hydro	Nephi Municipal Electric Dept.	Water	Salt Creek	500
Hydro	PacifiCorp	Water	American Fork	950
Hydro	PacifiCorp	Water	Cutler	30,000
Hydro	PacifiCorp	Water	Fountain Green	160
Hydro	PacifiCorp	Water	Granite	2,000
Hydro	PacifiCorp	Water	Gunlock	750
Hydro	PacifiCorp	Water	Olmstead	10,300
Hydro	PacifiCorp	Water	Pioneer	5,000
Hydro	PacifiCorp	Water	Sand Cove	650
Hydro	PacifiCorp	Water	Snake Creek	1,180
Hydro	PacifiCorp	Water	Stairs	1,000
Hydro	PacifiCorp	Water	Upper Beaver	2,400
Hydro	PacifiCorp	Water	Veho	500
Hydro	PacifiCorp	Water	Weber	3,900
Hydro	Parowan City Electrical Dept.	Water	Paragonah / Red Creek	600
Hydro	Parowan City Electrical Dept.	Water	Center Creek	600
Hydro*	Perpetual Storage Inc.	Water	Little Cottonwood Creek	5,000
Hydro	Springville Mun. Power and Light Dept.	Water	Bartholomew	1,500
Hydro	Springville Mun. Power and Light Dept.	Water	Hobble Creek	300
Hydro	Spring City Light and Power Plant	Water	Spring City	300
Hydro	Springville Mun. Power and Light Dept.	Water	Spring Creek	500
Hydro	Springville Mun. Power and Light Dept.	Water	Upper Bartholomew	200

Table 6.7 Cont.

Technology	Owner	Fuel Type	Plant Name	Capacity (kW)
Hydro	St George City Water and Power Dept.	Water	Pine Valley	600
Hydro	St. George City Water and Power Dept.	Water	Gunlock Hydro	380
Hydro	Strawberry Water Users Assn.	Water	Payson	400
Hydro	Strawberry Water Users Assn.	Water	Spanish Fork	3,750
Hydro*	Thayn Lee R and A Leon	Water	Thayn	400
Hydro	Washington County WCD	Water	Quail Creek	2,340
Hydro	Weber Basin Water Conserv. Dist.	Water	Gateway	4,000
Hydro	Weber Basin Water Conserv. Dist.	Water	Wanship	1,900
Hydro**	Weber Basin Water Conserv. Dist.	Water	Causey	2,100
Hydro*	Whitmore Hydroelectric Co.	Water	Whitmore Upper	800

Source: National Renewable Energy Laboratory - Renewable Electric Plant Information System (REPiS), 2002
 EIA, *Electric Power Annual*, Electric Generating Capacity 2002-2000 - Form EIA-860
 UEO for Solar data

No asterisk - Hydro. data recorded by both EIA and REPiS

* - Hydro. data recorded by REPiS but not by EIA

** - Recorded by EIA but not by REPiS

Note: This table does not include small residential renewable energy sources

Table 6.8 Proposed Renewable Energy Facilities in the State of Utah

Technology	Owner	Fuel Type	Plant Name	Capacity (kW)	Planned Year of Operation
Photovoltaic	Western Area Power Administration	Solar	Western APA - Regional Office	2	2004
Geothermal	Pacificorp / California Energy	Geothermal Steam	Roosevelt - Blundell Expansion	30,000 (?)	2005
Wind	Tasco Engineering	Wind	Stockton Bar Wind Farm	25,000	2005
Wind	Federal Government	Wind	Camp Williams - Extension	750	2004
Wind	Jack Rabbit Gas Station	Wind	Jack Rabbit Gas Station	50	2004
Hydro	Bountiful City Light and Power	Water	Joes Valley Dam	4,250	?

Source: National Renewable Energy Laboratory - Renewable Electric Plant Information System (REPiS), 2002

Table 6.9 Camp Williams Wind Turbine Energy Generation, May 2000-2002

Commission Date: May 20, 2000

Capacity: 0.225 megawatts

Location: Western slope of Traverse Mountains, Utah County (near Point of the Mountain)

	Hours	Days
In Service	22,944	956
Operational	17,667	736
Down	5,277	220
Wind	18,976	790
No Wind	3,968	165
Failed	3,265	136

Year/Month	Electricity from Wind	Electricity from Grid	Total	% Electricity from Wind
	kWh	kWh		
2002	224,312	5,632,407	5,856,719	3.83
Jan.	14,661	523,015	537,676	2.73
Feb.	24,933	505,611	530,544	4.70
Mar.	6,532	462,345	468,877	1.39
Apr.	29,470	347,310	376,780	7.82
May	24,326	379,586	403,912	6.02
Jun.	26,032	444,774	470,806	5.53
Jul.	13,895	595,658	609,553	2.28
Aug.	15,064	584,607	599,671	2.51
Sep.	18,914	412,624	431,538	4.38
Oct.	15,148	416,114	431,262	3.51
Nov.	14,989	449,635	464,624	3.23
Dec.	20,348	511,129	531,477	3.83
2001	230,729	6,256,555	6,487,284	3.56
2000	139,951	2,884,739	3,024,690	4.63

Source: Camp Williams

Figure 6.3a Wind verses Electric Grid Power Usage at Camp Williams, May 2000 – Dec. 2002

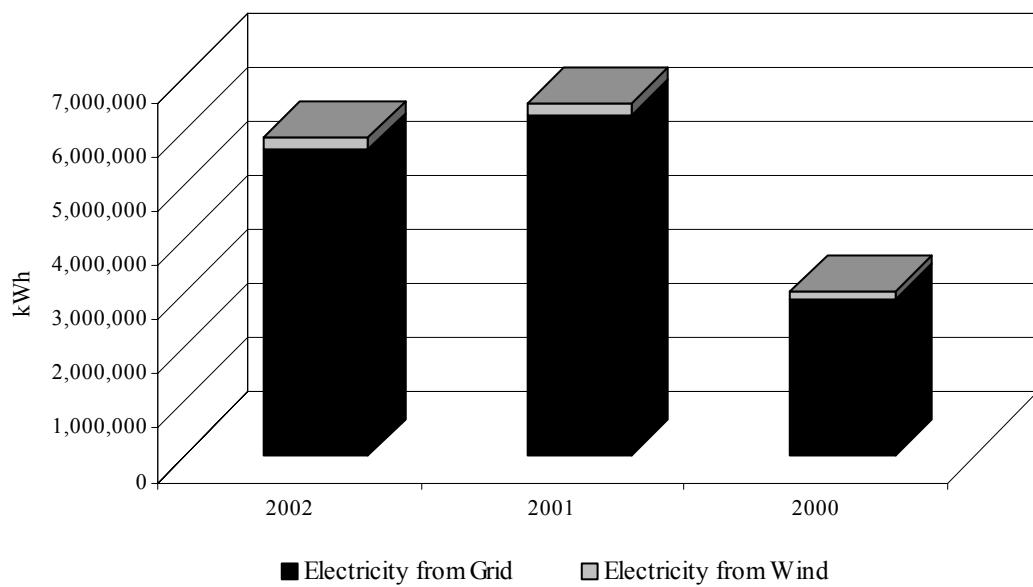
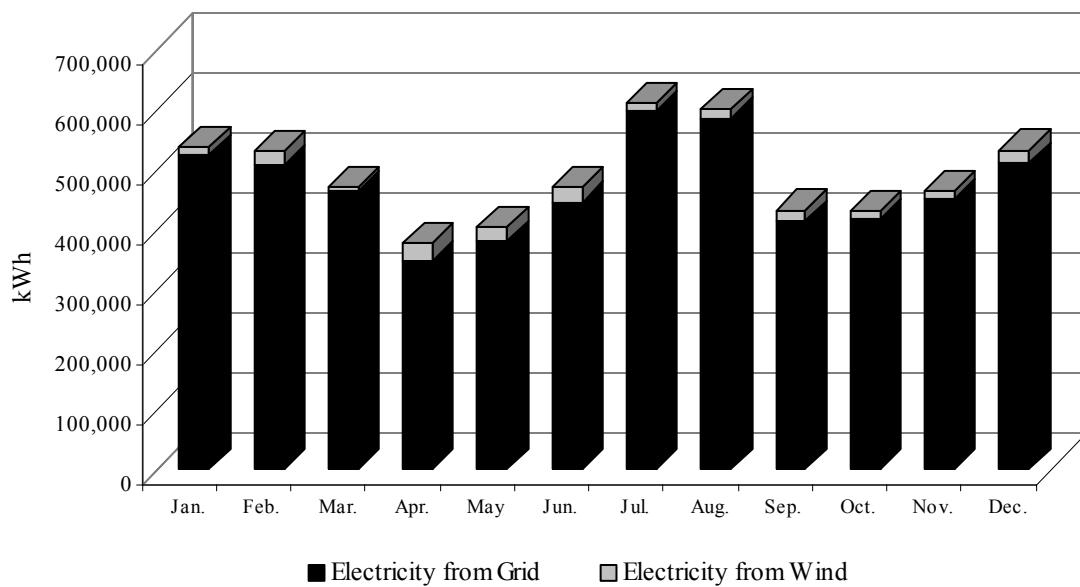


Figure 6.3b Wind verses Electric Grid Power Usage at Camp Williams, Jan. 2002 – Dec. 2002



Source: Camp Williams

Table 6.10 Glen Canyon National Recreational Area, Dangling Rope Marina Solar Energy Generation, Sept. 1996 - Nov. 2003

Commission Date:	September 1996
Capacity:	Sept. 1996 thru Dec. 1998 - 115 kW Dec. 1998 thru present - 160 kW
Initial cost of entire hybrid system:	\$1,450,000
Cost of expansion:	\$306,000
Total cost:	\$1,756,000
Amount of fuel consumed before solar:	~109,000 gallons per year of propane fuel
Amount of fuel consumed, 1996-1998:	~53,600 gallons per year
Amount of fuel consumed, 1999-present:	~39,600 gallons per year
Generator run-time before solar:	~8,760 hours per year
Generator run-time, 1996-1998:	~2,500 hours per year
Generator run-time, 1999-present:	~1,850 hours per year
Average % electricity from solar (1999-present):	54.4
Average % electricity from propane generator (1999-present):	45.6
Average kWh from solar per day (1999-present):	715.28
Average kWh from propane generator per day (1999-present):	670.64

Year/Month	Electricity from Solar	Electricity from Propane Generator	Load Energy	Loses	Days Operational	% Electricity from Solar
	kWh	kWh	kWh	kWh		
2003						
Jan.	na	na	na	na	na	na
Feb.	na	na	na	na	na	na
Mar.	na	na	na	na	na	na
Apr.	na	na	na	na	na	na
May	11,816	6,942	16,196	2,562	13	63.0
Jun.	27,602	28,225	43,766	12,061	30	49.4
Jul.	25,702	37,843	50,608	12,936	31	40.4
Aug.	25,033	33,543	48,565	10,011	31	42.7
Sep.	26,270	20,107	35,946	10,431	30	56.6
Oct.	19,748	16,248	27,052	8,944	30	54.9
Nov.	17,400	20,003	25,909	11,494	30	46.5
Dec.	--	--	--	--	--	--
2002						
Jan.	na	na	na	na	na	na
Feb.	na	na	na	na	na	na
Mar.	na	na	na	na	na	na
Apr.	na	na	na	na	na	na
May	na	na	na	na	na	na
Jun.	na	na	na	na	na	na
Jul.	na	na	na	na	na	na
Aug.	na	na	na	na	na	na
Sep.	na	na	na	na	na	na
Oct.	na	na	na	na	na	na
Nov.	na	na	na	na	na	na
Dec.	na	na	na	na	na	na
2001						
Jan.	na	na	na	na	na	na
Feb.	na	na	na	na	na	na
Mar.	na	na	na	na	na	na
Apr.	na	na	na	na	na	na
May	na	na	na	na	na	na
Jun.	na	na	na	na	na	na
Jul.	na	na	na	na	na	na
Aug.	na	na	na	na	na	na
Sep.	na	na	na	na	na	na
Oct.	na	na	na	na	na	na
Nov.	na	na	na	na	na	na
Dec.	na	na	na	na	na	na

Table 6.10 Cont.

Year/Month	Electricity from Solar	Electricity from Propane Generator	Load Energy	Loses	Days Operational	% Electricity from Solar
	kWh	kWh	kWh	kWh		
2000						
Jan.	11,088	13,313	17,341	7,060	23	45.4
Feb.	15,524	14,260	23,324	6,460	29	52.1
Mar.	22,113	8,892	23,969	7,036	31	71.3
Apr.	25,255	6,365	22,501	9,119	29	79.9
May	26,886	11,896	31,635	7,147	31	69.3
Jun.	24,570	24,746	40,875	8,441	30	49.8
Jul.	25,169	29,121	46,181	8,109	31	46.4
Aug.	23,850	35,122	46,766	12,206	31	40.4
Sep.	23,012	24,827	39,124	8,714	30	48.1
Oct.	19,581	18,305	30,019	7,867	31	51.7
Nov.	na	na	na	na	na	na
Dec.	na	na	na	na	na	na
1999						
Jan.	8,463	27,124	26,983	8,604	29	23.8
Feb.	18,706	8,291	22,446	4,552	28	69.3
Mar.	22,968	3,614	21,415	5,167	30	86.4
Apr.	18,718	10,176	23,671	5,223	29	64.8
May	25,140	11,270	28,184	8,225	31	69.0
Jun.	23,513	20,360	37,474	6,399	30	53.6
Jul.	22,364	35,391	46,352	11,403	31	38.7
Aug.	15,561	44,456	45,165	14,852	31	25.9
Sep.	21,341	23,112	36,819	7,633	30	48.0
Oct.	23,028	12,910	26,198	9,740	31	64.1
Nov.	20,151	7,710	21,860	6,001	30	72.3
Dec.	18,845	17,213	27,064	8,994	31	52.3
1998						
Jan.	na	na	na	na	na	na
Feb.	na	na	na	na	na	na
Mar.	na	na	na	na	na	na
Apr.	na	na	na	na	na	na
May	na	na	na	na	na	na
Jun.	na	na	na	na	na	na
Jul.	na	na	na	na	na	na
Aug.	na	na	na	na	na	na
Sep.	14,404	30,707	37,572	7,540	29	31.9
Oct.	13,796	27,556	33,463	7,889	31	33.4
Nov.	10,345	25,376	29,067	6,654	29	29.0
Dec.	10,362	33,732	34,356	9,738	30	23.5
1997						
Jan.	7,613	29,099	29,993	6,720	29	20.7
Feb.	11,687	20,289	25,945	6,031	27	36.5
Mar.	18,153	10,850	21,908	7,095	30	62.6
Apr.	17,172	15,757	25,925	7,004	29	52.1
May	19,122	24,305	36,764	6,663	30	44.0
Jun.	17,926	31,587	42,326	7,187	30	36.2
Jul.	15,450	40,815	50,102	6,164	30	27.5
Aug.	14,551	38,899	46,183	7,267	28	27.2
Sep.	6,709	19,458	22,887	3,280	15	25.6
Oct.	na	na	na	na	na	na
Nov.	na	na	na	na	na	na
Dec.	na	na	na	na	na	na
1996						
Sep.	15,833	35,228	44,467	6,595	29	31.0
Oct.	13,913	29,792	36,707	6,999	28	31.8
Nov.	11,877	22,841	27,585	7,134	29	34.2
Dec.	9,047	28,913	29,304	8,656	30	23.8

Source: Southwest Technology Development Institute
Utah Energy Office

Table 6.11 Energy Saving Systems Tax Credit in Utah, 1980-2002 (as of Sept. 2003)

Residential Sector

Table 6.11 Cont.

Commercial Sector

Year	Total Received	Total Approved	Total Amount Approved	Average per Credit	Total Equipment Cost	# of Solar Units (PV)	# of Wind Units	# of Hydro Units
			Dollars	Dollars	Dollars			
1980	3	3	2,432	811	24,322	na	na	na
1981	3	3	4,083	1,361	40,830	na	na	na
1982	6	5	8,051	1,610	83,850	na	na	na
1983	12	11	22,326	2,030	282,348	na	na	na
1984	16	16	33,711	2,107	508,186	na	na	na
1985	3	3	3,220	1,073	32,200	na	na	na
1986	4	4	9,793	2,448	97,925	na	na	na
1987	0	0	0	0	0	na	na	na
1988	0	0	0	0	0	na	na	na
1989	2	2	9,733	4,867	97,335	na	na	na
1990	1	1	4,088	4,088	40,879	na	na	na
1991	0	0	0	0	0	na	na	na
1992	2	2	3,347	1,673	33,466	na	na	na
1993	0	0	0	0	0	na	na	na
1994	na	1	11,290	11,290	112,898	0	0	1
1995	na	0	0	0	0	0	0	0
1996	--	--	--	--	--	--	--	--
1997	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0
1999	1	1	929	929	3,717	1	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2002	1	1	1,016	1,016	10,157	1	1	0
2003*	0	0	0	0	0	0	0	0
Total	54	53	114,019	35,303	1,368,113	2	1	1

Source: Utah Energy Office

*As of Sept. 2003

Notes: **Residential**

1980-June 1985; tax credit was 10% with a \$1,000 limit
 July 1986 - 1995; tax credit was 25% with a \$1,500 limit
 1997-present; tax credit is 25% with a \$2,000 limit

Commercial

1980-June 1985; tax credit was 10% with a \$3,000 limit
 July 1986 - 1995; tax credit was 10% with a \$25,000 limit
 1997-present; tax credit is 10% with a \$50,000 limit

The renewable energy tax credit did not exist in 1996.

WEATHER

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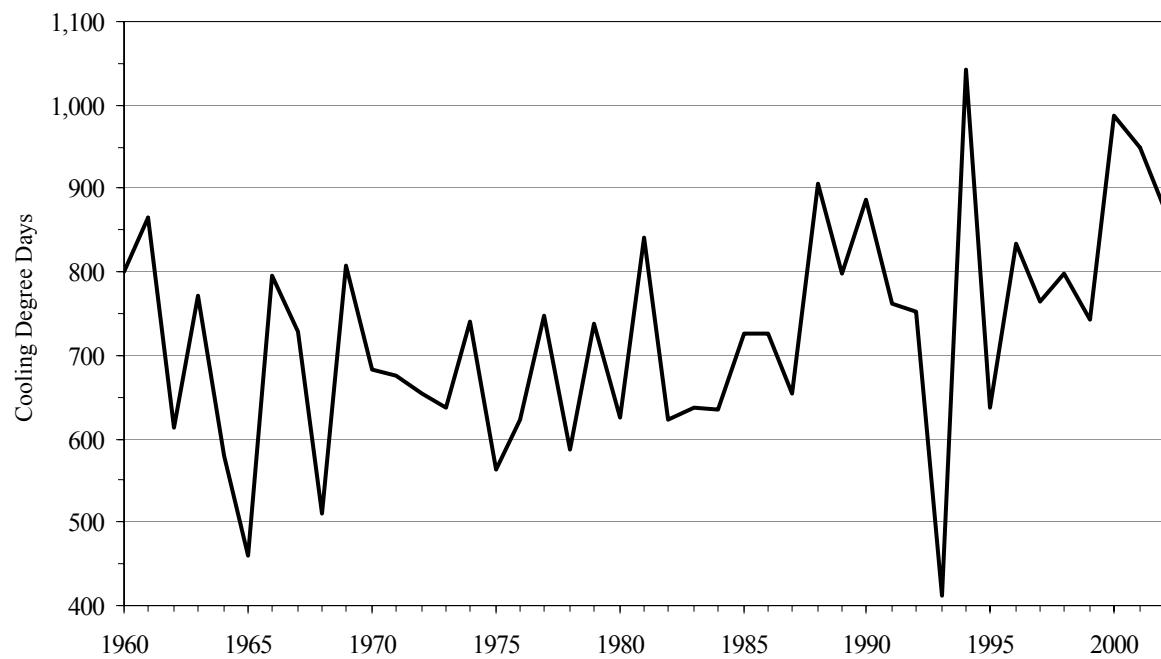
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Table 7.1 Cooling Degree Days in Utah, 1960-2002

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total
1960	0	0	0	1	19	147	350	174	108	1	0	0	800
1961	0	0	0	1	24	205	337	278	19	1	0	0	865
1962	0	0	0	7	14	95	222	187	81	8	0	0	614
1963	0	0	0	0	41	56	287	268	104	16	0	0	772
1964	0	0	0	0	11	50	308	169	39	3	0	0	580
1965	0	0	0	0	6	61	229	146	10	7	0	0	459
1966	0	0	0	1	43	114	334	217	85	2	0	0	796
1967	0	0	0	0	10	49	297	292	78	3	0	0	729
1968	0	0	0	0	12	100	276	89	31	2	0	0	510
1969	0	0	0	1	64	62	270	301	109	1	0	0	808
1970	0	0	0	0	17	104	254	288	20	1	0	0	684
1971	0	0	0	1	11	100	278	265	20	1	0	0	676
1972	0	0	1	1	24	135	254	204	33	1	0	0	653
1973	0	0	0	0	24	104	242	235	30	2	0	0	637
1974	0	0	0	1	26	180	290	173	67	3	0	0	740
1975	0	0	0	0	2	54	299	150	56	1	0	0	562
1976	0	0	0	0	33	79	301	137	71	1	0	0	622
1977	0	0	0	6	2	198	264	211	64	3	0	0	748
1978	0	0	0	0	8	104	275	161	35	4	0	0	587
1979	0	0	0	1	18	111	275	203	122	8	0	0	738
1980	0	0	0	1	8	96	287	170	62	2	0	0	626
1981	0	0	0	6	11	133	304	286	100	1	0	0	841
1982	0	0	0	1	12	85	204	279	40	1	0	0	622
1983	0	0	0	0	2	82	223	252	77	2	0	0	638
1984	0	0	0	1	30	69	255	227	53	1	0	0	636
1985	0	0	0	7	34	141	312	207	23	2	0	0	726
1986	0	0	0	1	17	198	206	283	19	1	0	0	725
1987	0	0	0	10	34	151	198	180	72	10	0	0	655
1988	0	0	0	1	19	216	362	240	47	22	0	0	907
1989	0	0	0	10	23	105	371	213	75	2	0	0	799
1990	0	0	0	8	15	143	325	240	153	2	0	0	886
1991	0	0	0	1	7	98	312	283	59	3	0	0	763
1992	0	0	0	15	60	133	202	261	71	10	0	0	752
1993	0	0	0	1	42	53	101	159	54	2	0	0	412
1994	0	0	0	1	48	193	352	333	114	1	0	0	1,042
1995	0	0	0	0	7	53	215	273	88	2	0	0	638
1996	0	0	0	2	22	175	331	261	43	1	0	0	835
1997	0	0	0	1	44	133	223	273	89	2	0	0	765
1998	0	0	0	0	16	45	345	283	108	1	0	0	798
1999	0	0	0	0	11	108	300	263	52	8	0	0	742
2000	0	0	0	10	43	161	365	337	70	1	0	0	987
2001	0	0	0	2	56	140	319	305	122	5	0	0	949
2002	0	0	0	4	25	165	396	223	63	2	0	0	878
Mean	0	0	0	2	23	116	283	232	66	4	0	0	726
Std. Dev.	0	0	0	4	16	48	59	57	34	4	0	0	134

Source: National Climatic Data Center, Historical Climatology Series 5-2

Figure 7.1 Cooling Degree Days in Utah, 1960-2002



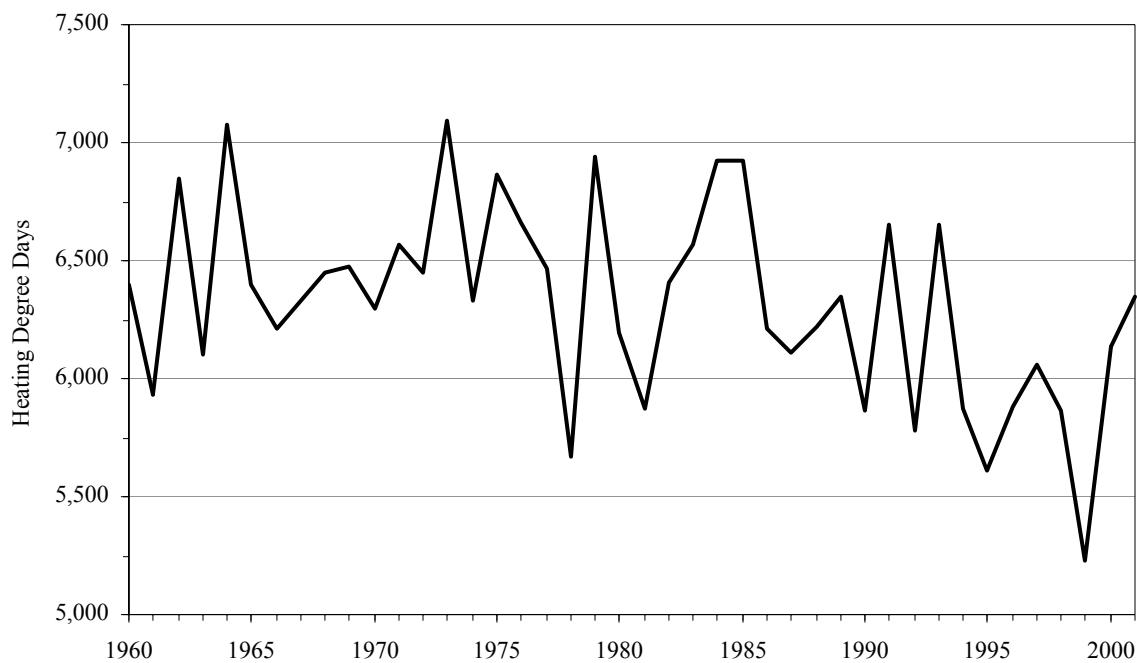
Source: National Climatic Data Center, Historical Climatology Series 5-2

Table 7.2 Heating Degree Days in Utah, 1960-2002

Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Annual Total
1960 / 1961	3	6	182	446	796	1,103	1,273	1,064	748	461	268	51	6,401
1961 / 1962	1	12	79	443	754	1,130	1,119	822	777	529	239	28	5,933
1962 / 1963	2	4	243	499	910	1,164	1,362	941	926	410	292	92	6,845
1963 / 1964	6	8	107	355	701	1,091	1,343	730	811	628	186	138	6,104
1964 / 1965	2	4	80	276	789	1,241	1,349	1,192	1,084	599	313	148	7,077
1965 / 1966	2	14	167	387	872	1,046	1,069	936	912	494	367	131	6,397
1966 / 1967	5	19	291	371	648	1,109	1,169	1,057	777	512	183	75	6,216
1967 / 1968	1	6	100	495	700	1,196	1,134	876	708	627	337	150	6,330
1968 / 1969	2	4	107	425	708	1,295	1,303	847	704	645	324	87	6,451
1969 / 1970	2	41	188	457	849	1,177	1,037	1,002	964	484	146	131	6,478
1970 / 1971	3	2	78	621	822	1,042	1,077	764	841	682	278	86	6,296
1971 / 1972	3	2	231	608	753	1,148	1,106	923	836	545	321	88	6,564
1972 / 1973	3	3	233	583	885	1,267	1,153	850	626	542	242	60	6,447
1973 / 1974	4	7	182	438	878	1,345	1,404	1,017	873	619	242	84	7,093
1974 / 1975	5	6	193	424	814	1,063	1,256	1,042	685	568	236	37	6,329
1975 / 1976	3	15	126	411	768	1,176	1,284	966	848	719	407	145	6,868
1976 / 1977	3	20	142	481	891	1,091	1,234	949	978	549	209	112	6,659
1977 / 1978	3	21	117	504	767	1,132	1,264	915	916	418	380	29	6,466
1978 / 1979	3	5	124	391	755	935	1,026	836	638	520	354	85	5,672
1979 / 1980	2	16	176	377	900	1,293	1,448	1,022	822	533	273	77	6,939
1980 / 1981	3	7	66	368	969	1,070	1,086	870	844	473	347	92	6,195
1981 / 1982	2	14	129	467	782	1,012	1,078	859	740	412	318	61	5,874
1982 / 1983	2	3	85	525	700	966	1,243	1,043	794	619	327	104	6,411
1983 / 1984	5	3	166	583	892	1,153	1,026	846	743	665	381	105	6,568
1984 / 1985	4	3	110	398	793	1,170	1,396	1,175	908	616	229	122	6,924
1985 / 1986	3	5	144	614	802	1,209	1,372	1,196	918	403	204	56	6,926
1986 / 1987	1	5	215	464	928	1,291	1,141	756	575	519	287	30	6,212
1987 / 1988	4	2	233	477	771	1,105	1,262	860	782	357	207	49	6,109
1988 / 1989	5	13	117	346	793	1,149	1,305	948	816	443	264	24	6,223
1989 / 1990	1	4	153	257	796	1,227	1,398	1,151	662	371	246	84	6,350
1990 / 1991	1	6	112	424	778	1,112	1,060	981	664	378	297	54	5,867
1991 / 1992	1	5	45	427	773	1,399	1,324	864	783	584	360	88	6,653
1992 / 1993	2	3	133	420	840	1,191	1,264	794	604	313	152	61	5,777
1993 / 1994	6	3	117	347	976	1,241	1,271	1,060	759	542	187	147	6,656
1994 / 1995	1	1	72	480	996	1,116	973	928	657	445	172	31	5,872
1995 / 1996	6	2	97	469	633	941	1,046	920	704	502	256	37	5,613
1996 / 1997	1	3	160	446	740	989	1,111	939	670	575	185	59	5,878
1997 / 1998	5	4	96	451	754	1,195	948	836	777	555	280	158	6,059
1998 / 1999	1	3	78	456	720	1153	971	820	650	605	327	80	5,864
1999 / 2000	2	4	148	367	605	1,074	955	745	733	364	186	44	5,227
2000 / 2001	1	1	121	427	1017	1060	1235	904	670	488	162	51	6,137
2001 / 2002	3	4	66	375	707	1247	1209	1071	902	450	260	50	6,344
2002 / 2003	0	9	127	534	862	1029	--	--	--	--	--	--	2,561
Mean	3	7	138	445	804	1,143	1,192	936	782	518	267	81	6,317
Std. Dev.	2	7	56	82	96	105	140	121	114	98	70	39	420

Source: National Climatic Data Center, Historical Climatology Series 5-2

Figure 7.2 Heating Degree Days in Utah, 1960-2002



Source: National Climatic Data Center, Historical Climatology Series 5-2

U.S. OVERVIEW BY STATE

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Table 8.1 U.S. Energy Production by State, 2001

Rank	Crude Oil ¹		Natural Gas ²		Electricity ³ (only hydro, nuclear, renewables and other)		Coal ⁴					
	Thousand Bbls	Trillion Btu	Million cf	Trillion Btu	Gigawatthours	Trillion Btu	Thousand short tons	Trillion Btu				
1	Federal Offshore (Gulf Coast)	558,023	3,236.5	Texas	5,360,148	5,923.0	Washington	64,808	977.1	Wyoming	368,749	6,411.5
2	Texas	424,793	2,463.8	Federal Offshore (Gulf Coast)	5,045,357	5,575.1	California	82,712	849.0	West Virginia	162,416	4,000.7
3	Alaska	351,409	2,038.2	New Mexico	1,689,125	1,866.5	Pennsylvania	78,173	815.0	Kentucky	133,834	3,258.5
4	California	260,667	1,511.9	Oklahoma	1,615,384	1,785.0	South Carolina	51,539	671.1	Pennsylvania	74,146	1,918.2
5	Oklahoma	68,725	398.6	Louisiana	1,502,825	1,660.6	Louisiana	21,976	660.0	Texas	45,042	1,010.4
6	Louisiana	104,918	608.5	Wyoming	1,363,879	1,507.1	Oregon	29,764	537.7	Montana	39,143	870.1
7	New Mexico	68,998	400.2	Colorado	696,237	769.3	Illinois	93,607	486.4	Indiana	36,738	944.0
8	Wyoming	57,436	333.1	Kansas	480,145	530.6	Alabama	43,331	448.6	Illinois	33,783	779.0
9	Kansas	32,736	189.9	Alaska	471,440	520.9	Florida	38,558	441.3	Colorado	33,372	600.7
10	North Dakota	31,693	183.8	California	377,824	417.5	Georgia	38,911	404.8	Virginia	32,774	758.8
11	Federal Offshore (California)	33,193	192.5	Alabama	356,810	394.3	New York	64,969	400.6	North Dakota	30,475	386.2
12	Colorado	19,554	113.4	Utah	283,482	313.2	Michigan	29,795	380.5	New Mexico	29,618	561.0
13	Mississippi	19,530	113.3	Michigan	275,036	303.9	Tennessee	35,637	370.0	Utah	27,024	644.6
14	Montana	16,287	94.5	West Virginia	250,932	277.3	Minnesota	14,895	338.0	Ohio	25,400	614.2
15	Utah	15,274	88.6	Arkansas	166,804	184.3	Arizona	36,663	310.2	Alabama	19,364	252.6
16	Illinois	11,115	64.5	Pennsylvania	157,000	173.5	West Virginia	1,067	302.0	Arizona	13,418	293.5
17	Arkansas	7,584	44.0	Mississippi	107,541	118.8	Maryland	15,883	284.7	Maryland	4,644	112.3
18	Michigan	7,374	42.8	Ohio	100,107	110.6	Virginia	27,306	228.1	Washington	4,624	71.8
19	Ohio	6,050	35.1	Kentucky	81,723	90.3	Oklahoma	2,542	195.1	Louisiana	3,715	95.7
20	Alabama	9,346	54.2	Montana	81,397	89.9	Texas	46,832	174.1	Tennessee	3,324	80.4
21	Florida	4,426	25.7	Virginia	71,543	79.1	Kentucky	3,870	165.2	Oklahoma	1,714	23.4
22	Nebraska	2,922	16.9	North Dakota	54,732	60.5	Indiana	3,203	154.6	Alaska	1,514	38.0
23	Kentucky	2,970	17.2	Federal Offshore (California)	42,223	46.7	Wisconsin	14,814	153.7	Mississippi	604	10.3
24	Pennsylvania	2,233	13.0	New York	27,787	30.7	Missouri	9,286	118.8	Missouri	366	7.9
25	Indiana	2,023	11.7	Florida	5,710	6.3	Ohio	16,713	96.7	Kansas	176	3.7
26	West Virginia	1,499	8.7	Tennessee	2,000	2.2	New Jersey	32,420	39.3	Arkansas	14	0.2
27	South Dakota	1,255	7.3	Nebraska	1,208	1.3	North Carolina	42,394	32.5	--	--	--
28	Nevada	571	3.3	Oregon	1,110	1.2	Mississippi	11,416	25.8	--	--	--
29	Tennessee	386	2.2	South Dakota	1,100	1.2	Colorado	1,311	13.3	--	--	--
30	New York	183	1.1	Indiana	1,064	1.2	Arkansas	18,795	10.8	--	--	--
	U.S. Total	2,123,173	12,314.4	U.S. Total	20,630,412	22,796.6	U.S. Total	1,073,312	11,117.4	U.S. Total	1,125,991	23,747.8

Source: ¹EIA, *Petroleum Supply Annual, Volume 1, 2002*

Note: Coal tons to Btu conversion for each state is from EIA FERC-423

²EIA, *Natural Gas Annual, 2001*

Utah electricity production = 962.7 gigawatthours or 9.8 Trillion Btu

³EIA, *Electric Power Annual, 2001* and previous issues

⁴EIA, *Annual Coal Report, 2001*

Table 8.2 U.S. Energy Consumption by State, 2001

Rank	Petroleum Products ¹			Natural Gas ²			Electricity ³			Coal ⁴		
	Thousand Bbls	Trillion Btu	Million Btu per capita	Million cf	Trillion Btu	Million Btu per capita	Gigawatt-hours	Trillion Btu	Million Btu per capita	Thousand short tons	Trillion Btu	Million Btu per capita
1	Texas	1,129,174	5,521.0	258.9	Texas	4,251,565	4,370.6	205.0	Texas	316,062	1,078.4	50.6
2	California	656,863	3,604.4	104.5	California	2,467,748	2,536.8	73.5	California	235,439	803.3	23.3
3	Florida	358,559	1,989.7	121.3	Louisiana	1,304,328	1,340.8	300.3	Florida	199,698	681.4	41.6
4	New York	308,659	1,712.5	90.1	New York	1,171,158	1,204.0	63.3	Ohio	154,459	527.0	46.3
5	Louisiana	288,776	1,491.4	334.0	Illinois	949,273	975.9	78.2	New York	141,399	482.5	25.4
6	Pennsylvania	263,233	1,454.4	118.4	Michigan	907,991	933.4	93.4	Pennsylvania	137,894	470.5	38.3
7	Ohio	239,604	1,305.2	114.8	Ohio	801,869	824.3	72.5	Illinois	135,685	463.0	37.1
8	Illinois	242,769	1,304.1	104.5	Pennsylvania	635,179	653.0	53.1	Georgia	117,790	401.9	47.9
9	New Jersey	225,683	1,246.3	146.9	New Jersey	570,623	586.6	69.1	North Carolina	117,623	401.3	49.0
10	Michigan	198,642	1,041.7	104.3	Florida	544,165	559.4	34.1	Michigan	101,955	347.9	34.8
11	Georgia	191,681	1,034.0	123.3	Oklahoma	533,389	548.3	158.5	Indiana	97,734	333.5	54.5
12	North Carolina	178,544	949.6	116.0	Indiana	501,469	515.5	84.3	Virginia	96,123	328.0	45.6
13	Virginia	167,126	911.2	126.8	Alaska	408,958	420.4	662.2	Tennessee	95,320	325.2	56.7
14	Washington	152,846	842.5	140.7	Colorado	379,994	390.6	88.4	Kentucky	79,975	272.9	67.1
15	Indiana	153,632	837.3	136.9	Massachusetts	364,864	375.1	58.8	Washington	79,666	271.8	45.4
16	Massachusetts	137,854	762.4	119.5	Wisconsin	359,767	369.8	68.5	Alabama	79,234	270.3	60.5
17	Missouri	135,381	718.8	127.7	Georgia	351,096	360.9	43.0	South Carolina	74,832	255.3	62.8
18	Tennessee	129,979	708.2	123.4	Minnesota	338,676	348.2	70.0	Louisiana	74,681	254.8	57.1
19	Kentucky	130,889	704.3	173.2	Alabama	330,993	340.3	76.2	Missouri	73,213	249.8	44.4
20	Minnesota	124,687	673.5	135.5	Mississippi	330,937	340.2	119.0	New Jersey	72,340	246.8	29.1
21	Wisconsin	124,784	668.4	123.7	Washington	309,341	318.0	53.1	Wisconsin	65,184	222.4	41.2
22	Oklahoma	106,892	588.4	170.1	Missouri	283,783	291.7	51.8	Arizona	62,282	212.5	40.0
23	Maryland	103,914	568.1	105.7	Kansas	272,487	280.1	104.0	Minnesota	60,288	205.7	41.4
24	Alabama	100,835	539.6	120.9	New Mexico	268,812	276.3	151.1	Maryland	59,800	204.0	38.0
25	Arizona	96,789	524.2	98.8	Tennessee	255,920	263.1	45.8	Massachusetts	52,663	179.7	28.2
26	Mississippi	89,146	485.5	169.9	Arizona	241,320	248.1	46.7	Oklahoma	49,667	169.5	49.0
27	South Carolina	87,150	469.5	115.6	Virginia	237,881	244.5	34.0	Oregon	45,885	156.6	45.1
28	Colorado	86,814	461.8	104.5	Oregon	229,479	235.9	67.9	Mississippi	44,287	151.1	52.9
29	Connecticut	79,501	438.7	128.1	Arkansas	227,931	234.3	87.0	Colorado	44,236	150.9	34.2
30	Iowa	78,716	400.9	137.1	Iowa	224,332	230.6	78.9	Arkansas	41,732	142.4	52.9
31	Kansas	73,906	391.0	145.1	Kentucky	208,793	214.6	52.8	Iowa	39,213	133.8	45.8
32	Arkansas	71,038	378.6	140.6	North Carolina	207,181	213.0	26.0	Kansas	35,847	122.3	45.4
33	Oregon	67,081	368.2	106.0	Maryland	183,033	188.2	35.0	Connecticut	30,531	104.2	30.4
34	Alaska	51,099	292.2	460.2	Nevada	177,088	182.0	86.4	Nevada	28,167	96.1	45.6
35	Utah	47,939	261.4	115.2	Utah	159,258	163.7	72.1	West Virginia	27,669	94.4	52.4
36	New Mexico	47,126	251.0	137.2	Connecticut	146,737	150.8	44.0	Nebraska	24,723	84.4	49.3
37	Nevada	45,867	250.2	118.8	South Carolina	141,783	145.8	35.9	Utah	23,217	79.2	34.9

Table 8.2 (continued)

Rank	Petroleum Products ¹				Natural Gas ²				Electricity ³				Coal ⁴			
	Thousand Bbls	Trillion Btu	Million Btu per capita		Million cf	Trillion Btu	Million Btu per capita		Gigawatt- hours	Trillion Btu	Million Btu per capita		Thousand short tons	Trillion Btu	Million Btu per capita	
38	Hawaii	41,480	239.8	195.9	West Virginia	141,407	145.4	80.7	Idaho	21,096	72.0	54.5	Washington	6,151	100.5	16.8
39	Maine	41,740	233.4	181.4	Nebraska	121,980	125.4	73.2	New Mexico	18,727	63.9	34.9	California	2,823	66.9	1.9
40	Nebraska	40,811	217.8	127.1	Wyoming	98,568	101.3	204.9	Wyoming	12,950	44.2	89.4	South Dakota	2,599	46.7	61.7
41	West Virginia	39,425	215.0	119.3	Maine	95,733	98.4	76.5	Maine	11,836	40.4	31.4	Oregon*	2,480	42.8	12.3
42	New Hampshire	33,296	178.3	141.6	Rhode Island	95,604	98.3	92.8	Montana	11,165	38.1	42.1	Delaware	1,653	42.8	53.8
43	Montana	30,276	168.0	185.8	Idaho	80,253	82.5	62.5	Delaware	10,665	36.4	45.7	New Hampshire*	1,531	40.2	31.9
44	Wyoming	28,064	157.0	317.5	Montana	65,033	66.9	73.9	New Hampshire	10,316	35.2	28.0	Connecticut*	1,578	38.7	11.3
45	Idaho	28,576	155.3	117.6	North Dakota	60,813	62.5	98.5	North Dakota	9,810	33.5	52.8	Alaska	993	21.1	33.2
46	Delaware	26,155	146.5	184.0	Delaware	50,109	51.5	64.7	Hawaii	9,776	33.4	27.3	Hawaii	825	17.9	14.6
47	North Dakota	26,445	138.0	217.5	South Dakota	37,076	38.1	50.4	Dist. of Columbia	9,410	32.1	56.1	Idaho	553	12.2	9.2
48	South Dakota	20,935	111.9	147.9	Dist. of Columbia	29,796	30.6	53.6	South Dakota	8,627	29.4	38.9	Maine	307	7.9	6.1
49	Rhode Island	18,275	99.8	94.2	New Hampshire	23,398	24.1	19.1	Rhode Island	7,847	26.8	25.3	Dist. of Columbia*	6	0.2	0.3
50	Vermont	16,984	88.9	145.0	Vermont	7,919	8.1	13.3	Vermont	5,617	19.2	31.3	Rhode Island*	2	0.1	0.1
51	Dist. of Columbia	6,135	33.5	58.6	Hawaii	2,818	2.9	2.4	Alaska	5,428	18.5	29.1	Vermont*	1	0.0	0.0
	U.S. Total	7,171,778	38,333.3	134.6	U.S. Total	22,246,687	22,869.6	80.3	U.S. Total	3,369,781	11,497.7	40.4	U.S. Total	1,060,788	22,095.2	77.6

Source: ¹EIA, State Energy Data Report²EIA, *Natural Gas Annual, 2001*³EIA, State Energy Data Report⁴EIA, *Annual Coal Report, 2002*

*UEO estimations

Table 8.3 U.S. Average Energy Prices by State, 2001

Rank	Petroleum Products ¹	Dollars per Million Btu	Natural Gas ²	Dollars per Million Btu	Electricity ³	Dollars per Million Btu	Coal ⁴	Dollars per Million Btu
1	Dist. of Columbia	11.39	Hawaii	16.55	Hawaii	41.34	Vermont	2.33
2	Vermont	11.14	Dist. of Columbia	11.97	California	34.60	Rhode Island	2.27
3	Colorado	10.78	Rhode Island	10.34	New York	34.09	New Jersey	2.24
4	Rhode Island	10.69	Maryland	10.34	Massachusetts	33.74	Delaware	2.04
5	Illinois	10.58	New Hampshire	9.66	New Hampshire	32.08	Maine	1.83
6	Michigan	10.49	Pennsylvania	9.45	Vermont	31.65	Connecticut	1.77
7	Oregon	10.47	California	8.94	Rhode Island	31.62	Massachusetts	1.73
8	Minnesota	10.28	Connecticut	8.90	Maine	31.46	Florida	1.71
9	Arizona	10.24	Massachusetts	8.82	Alaska	30.97	Georgia	1.70
10	Iowa	10.23	Missouri	8.80	Connecticut	28.19	Mississippi	1.66
11	Idaho	10.20	North Carolina	8.74	New Jersey	27.62	New Hampshire	1.66
12	Maryland	10.20	Indiana	8.33	Nevada	23.12	Virginia	1.59
13	Wisconsin	10.20	New York	8.27	Pennsylvania	23.08	South Carolina	1.59
14	New Mexico	10.19	Virginia	8.21	Dist. of Columbia	23.05	North Carolina	1.57
15	West Virginia	10.18	Maine	8.19	Florida	22.57	Idaho	1.53
16	Nebraska	10.17	Tennessee	8.06	Texas	21.85	Maryland	1.48
17	South Dakota	10.07	Nevada	8.05	Arizona	21.30	New Mexico	1.48
18	California	10.06	Ohio	7.94	New Mexico	21.09	New York	1.46
19	Ohio	10.04	Illinois	7.87	Delaware	20.60	Dist. of Columbia	1.45
20	New Hampshire	10.03	Wisconsin	7.70	Louisiana	20.54	Alabama	1.42
21	Utah	10.03	Georgia	7.62	Michigan	20.50	Pennsylvania	1.38
22	North Dakota	9.96	South Dakota	7.61	Illinois	20.27	California	1.38
23	Nevada	9.88	Vermont	7.58	Ohio	19.57	Alaska	1.35
24	Connecticut	9.81	Kentucky	7.56	Maryland	19.52	Texas	1.35
25	Pennsylvania	9.80	Washington	7.56	North Carolina	19.45	Ohio	1.33
26	Kansas	9.78	Iowa	7.36	Montana	19.17	Michigan	1.29
27	Missouri	9.76	Nebraska	7.27	Georgia	18.77	Louisiana	1.29
28	Massachusetts	9.75	Minnesota	7.13	South Dakota	18.62	West Virginia	1.27
29	North Carolina	9.74	Idaho	7.12	Mississippi	18.52	Arizona	1.27
30	Alabama	9.73	Alabama	7.08	Kansas	18.32	Nevada	1.26
31	Arkansas	9.58	South Carolina	7.08	Virginia	18.18	Indiana	1.25
32	Wyoming	9.55	Oklahoma	6.90	Iowa	18.00	Illinois	1.24
33	Montana	9.53	Arkansas	6.85	Oklahoma	17.93	Tennessee	1.20
34	Virginia	9.53	Kansas	6.76	Arkansas	17.89	Washington	1.15
35	Indiana	9.41	Delaware	6.70	Wisconsin	17.86	Utah	1.15
36	South Carolina	9.41	Wyoming	6.61	Minnesota	17.75	Kentucky	1.12
37	Kentucky	9.24	Utah	6.40	Colorado	17.70	Oregon	1.12
38	Oklahoma	9.24	New Jersey	6.36	Missouri	17.67	Wisconsin	1.06
39	Tennessee	9.24	Montana	6.33	South Carolina	16.91	Minnesota	1.06
40	Maine	9.17	Colorado	6.30	Alabama	16.62	Kansas	1.05
41	Washington	9.09	Arizona	6.20	Tennessee	16.52	Hawaii	1.02
42	New York	9.06	North Dakota	6.17	North Dakota	16.10	South Dakota	0.97
43	New Jersey	8.86	West Virginia	6.06	Oregon	15.93	Missouri	0.97
44	Georgia	8.85	New Mexico	6.02	Nebraska	15.80	Colorado	0.93
45	Delaware	8.68	Oregon	5.96	Indiana	15.57	Arkansas	0.91
46	Mississippi	8.64	Florida	5.67	Washington	15.46	Oklahoma	0.91
47	Hawaii	8.23	Michigan	5.17	Utah	15.36	North Dakota	0.87
48	Florida	8.09	Mississippi	5.08	West Virginia	14.90	Iowa	0.86
49	Alaska	7.93	Louisiana	4.93	Idaho	14.41	Wyoming	0.80
50	Texas	7.93	Texas	4.58	Wyoming	13.15	Montana	0.75
51	Louisiana	7.73	Alaska	2.85	Kentucky	12.48	Nebraska	0.59
	U.S. Total	9.33	U.S. Total	6.46	U.S. Total	21.51	U.S. Total	1.23

Source: ¹EIA, State Energy Data Report

³EIA, State Energy Data Report

²EIA, *Natural Gas Monthly* (estimated)

⁴EIA, *Annual Coal Report*, 2002 (estimated)

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Table A Abbreviations

Acronym	Description
Bbl	Barrel
Btu	British Thermal Unit
cf	Cubic Feet
EIA	Energy Information Administration
F.O.B.	Free on Board at the mine
GDP	Gross Domestic Product
GSP	Gross State Product
GW	Gigawatt
GWh	Gigawatthour
kW	Kilowatt
kWh	Kilowatthour
LNG	Liquefied Natural Gas
NGL	Natural Gas Liquids
m	Thousand
mcf	Thousand cubic feet
mm	Million
MSW	Municipal Solid Waste
MW	Megawatt
MWh	Megawatthour
PV	Photovoltaic
U ₃ O ₈	Uranium Oxide
UEO	Utah Energy Office

Table B Petroleum Product Thermal Conversion Factors
Million Btu per Barrel

Petroleum Product	Heat Content
Asphalt	6.636
Aviation Gasoline	5.048
Butane	4.326
Butane-Propane Mixture (60/40)	4.130
Distillate Fuel Oil	5.825
Ethane	3.082
Ethane-Propane Mixture (70/30)	3.308
Isobutane	3.974
Jet Fuel, Kerosene-Type	5.670
Jet Fuel, Naphtha-Type	5.355
Kerosene	5.670
Lubricants	6.065
Motor Gasoline	
Conventional	5.253
Oxygenated	5.150
Reformulated	5.150
Fuel Ethanol	3.539
Natural Gasoline	4.620
Pentanes Plus	4.620
Petrochemicals Feedstocks	
Naphtha less than 401 degrees F	5.248
Other Oils equal to or greater than 401 degrees F	5.825
Still Gas	6.000
Petroleum Coke	6.024
Plant Condensate	5.418
Propane	3.836
Residual Fuel Oil	6.287
Road Oil	6.636
Special Naphthas	5.248
Still Gas	6.000
Unfinished Oils	5.825
Unfractionated Stream	5.418
Waxes	5.537
Miscellaneous	5.796

Table C Selected Biomass Thermal Conversion Factors

Fuel Type	Heat Content	Units
Agricultural Byproducts	8.248	Million Btu/Short Ton
Black Liquor	11.758	Million Btu/Short Ton
Digester Gas	0.619	Million Btu/Thousand Cubic Feet
Landfill Gas	0.490	Million Btu/Thousand Cubic Feet
Methane	0.841	Million Btu/Thousand Cubic Feet
Municipal Solid Waste (MSW)	9.945	Million Btu/Short Ton
Paper pellets	13.029	Million Btu/Short Ton
Peat	8.000	Million Btu/Short Ton
Railroad Ties	12.618	Million Btu/Short Ton
Sludge Waste	7.512	Million Btu/Short Ton
Sludge Wood	10.071	Million Btu/Short Ton
Solid Byproducts	25.830	Million Btu/Short Ton
Spent Sulfite Liquor	12.720	Million Btu/Short Ton
Tires	26.865	Million Btu/Short Ton
Utility Poles	12.500	Million Btu/Short Ton
Waste Alcohol	3.800	Million Btu/Barrel
Wood/Wood Waste	9.961	Million Btu/Short Ton

Source: EIA, Form EIA-860B (Annual Electric Generator Report - Nonutility 1999)

Table D Utah Energy Production - Thermal Conversion Factors
Million Btu per Unit of Measure

Year	Coal	Crude Oil	Natural Gas	Yellowcake	Electricity	
	Short Tons	Barrels	Thousand Cubic Feet	Pounds	Hydro	Geothermal
1960	23.500	5.800	1.107	58.000	0.011	0.023
1961	23.500	5.800	1.108	58.000	0.011	0.023
1962	23.500	5.800	1.107	58.000	0.011	0.023
1963	23.500	5.800	1.103	58.000	0.011	0.022
1964	23.500	5.800	1.102	58.000	0.010	0.022
1965	23.500	5.800	1.101	58.000	0.010	0.022
1966	23.500	5.800	1.103	58.000	0.010	0.022
1967	23.500	5.800	1.105	58.000	0.010	0.022
1968	23.500	5.800	1.115	58.000	0.010	0.022
1969	23.500	5.800	1.103	58.000	0.010	0.022
1970	23.500	5.800	1.102	58.000	0.010	0.022
1971	23.500	5.800	1.103	58.000	0.010	0.022
1972	23.500	5.800	1.100	58.000	0.010	0.022
1973	23.500	5.800	1.093	58.000	0.010	0.022
1974	23.500	5.800	1.097	58.000	0.010	0.022
1975	23.500	5.800	1.095	58.000	0.010	0.022
1976	23.500	5.800	1.093	58.000	0.010	0.022
1977	23.500	5.800	1.093	58.000	0.010	0.022
1978	23.500	5.800	1.088	58.000	0.010	0.022
1979	23.500	5.800	1.092	58.000	0.010	0.022
1980	23.500	5.800	1.098	58.000	0.010	0.022
1981	23.500	5.800	1.103	58.000	0.010	0.022
1982	23.500	5.800	1.107	58.000	0.010	0.022
1983	23.500	5.800	1.115	58.000	0.011	0.021
1984	23.500	5.800	1.109	58.000	0.010	0.021
1985	23.500	5.800	1.112	58.000	0.010	0.021
1986	23.500	5.800	1.110	58.000	0.010	0.021
1987	23.500	5.800	1.112	58.000	0.010	0.021
1988	23.500	5.800	1.109	58.000	0.010	0.021
1989	23.500	5.800	1.107	58.000	0.010	0.021
1990	23.598	5.800	1.105	58.000	0.010	0.021
1991	23.572	5.800	1.108	58.000	0.010	0.021
1992	23.648	5.800	1.110	58.000	0.010	0.021
1993	23.200	5.800	1.106	58.000	0.010	0.021
1994	23.236	5.800	1.105	58.000	0.010	0.021
1995	23.296	5.800	1.106	58.000	0.010	0.021
1996	23.282	5.800	1.109	58.000	0.010	0.021
1997	23.096	5.800	1.107	58.000	0.010	0.021
1998	23.040	5.800	1.109	58.000	0.010	0.021
1999	23.530	5.800	1.107	58.000	0.010	0.021
2000	23.692	5.800	1.107	58.000	0.010	0.021
2001	23.968	5.800	1.105	58.000	0.010	0.021
2002	23.946	5.800	1.105	58.000	0.010	0.021

Table E Utah Energy Consumption - Thermal Conversion Factors
Million Btu per Unit of Measure

Year	Coal	Natural Gas	Electricity	
			Hydro	Geothermal
	Short Tons	Thousand Cubic Feet	Kilowatthour	Kilowatthour
1960	26.384	1.035	0.011	0.023
1961	25.609	1.036	0.011	0.023
1962	26.272	1.035	0.010	0.023
1963	26.285	0.926	0.011	0.022
1964	26.394	0.923	0.010	0.022
1965	26.426	0.925	0.010	0.022
1966	26.340	0.921	0.010	0.022
1967	26.299	0.924	0.010	0.022
1968	26.365	0.925	0.010	0.022
1969	26.238	0.925	0.010	0.022
1970	26.050	0.938	0.011	0.022
1971	25.829	0.938	0.010	0.022
1972	25.661	0.938	0.010	0.022
1973	25.425	0.945	0.010	0.022
1974	25.240	0.952	0.010	0.022
1975	24.957	0.950	0.010	0.022
1976	24.727	0.948	0.010	0.022
1977	24.461	0.950	0.010	0.022
1978	24.169	0.956	0.010	0.022
1979	24.057	0.960	0.010	0.022
1980	23.684	1.086	0.010	0.022
1981	23.641	1.073	0.010	0.022
1982	23.516	0.939	0.010	0.022
1983	23.309	1.075	0.011	0.021
1984	23.479	1.075	0.010	0.021
1985	24.015	1.075	0.010	0.021
1986	23.299	0.948	0.010	0.021
1987	23.190	1.080	0.010	0.028
1988	23.289	1.081	0.010	0.021
1989	22.966	1.087	0.010	0.024
1990	23.275	1.088	0.010	0.024
1991	23.257	1.073	0.010	0.024
1992	23.068	1.078	0.010	0.019
1993	23.097	1.080	0.010	0.019
1994	22.960	1.067	0.010	0.020
1995	23.100	1.063	0.010	0.021
1996	23.068	1.046	0.010	0.021
1997	22.683	1.041	0.010	0.020
1998	22.613	1.045	0.010	0.020
1999	23.099	1.054	0.010	0.020
2000	23.201	1.049	0.010	0.019
2001	24.235	1.049	0.010	0.020
2002	26.031	1.035	0.010	0.019

GLOSSARY

API Gravity: An arbitrary scale expressing the gravity or density of liquid petroleum products. The higher the API gravity, the lighter the compound. Light crudes generally exceed 38 degrees API and heavy crudes are commonly labeled as all crudes with an API gravity of 22 degrees or below. Intermediate crudes fall in the range of 22 degrees to 38 degrees API gravity.

Asphalt: A dark-brown to black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing.

Associated Dissolved (Natural Gas): Volume of natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).

Average Daily Production: The ratio of the total production at a mining operation to the total number of production days worked at the operation.

Average Production per Miner per Day: The product of the average production per miner per hour at a mining operation and the average length of a production shift at the operation.

Average Production per Miner per Hour: The ratio of the total production at a mining operation to the total direct labor hours worked at the operation.

Aviation Gasoline (Finished): All special grades of gasoline for use in aviation reciprocating engines.

Balancing Item / Adjustment: The difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems that vary in scope, format, definitions and type of respondents.

Barrel (Bbl): A fluid measure equal to 42 U.S. gallons.

Barrels per Stream Day: The maximum number of barrels of input that a distillation facility can process within a 24-hour period when running at full capacity under optimal crude and product slate conditions with no allowance for downtime.

Biomass: Organic nonfossil material of biological origin constituting a renewable energy source.

Bituminous Coal: Bituminous coal or soft coal is the most common coal. It is dense, black, often with well-defined bands of bright and dull material. Its moisture content usually is less than 20 percent. The heating value ranges from 19 to 30 million Btu per ton and averages about 23 million Btu per ton. The ignition temperature ranges from about 700 to almost 900 degrees Fahrenheit. It is used for generating electricity, making coke, space heating and supplying heat for industrial use.

Btu (British Thermal Unit): The amount of heat needed to raise the temperature of 1 pound of water by 1 degree Fahrenheit at or near 39.2 F. The Btu is a convenient measure by which to compare the energy content of various fuels.

Butane: A normally gaseous, paraffinic hydrocarbon (C_4H_{10}) extracted from natural gas or refinery gas streams. It is used primarily for blending into high-octane gasoline, for residential and commercial heating and for industrial purposes, especially the manufacture of chemicals and synthetic rubber.

Butylene: An olefinic hydrocarbon (C_4H_8) recovered from refinery processes.

Capacity: The amount of electric power delivered or required by which a generator, turbine, transformer, transmission circuit station or system is rated by the manufacturer (see Nameplate capacity).

Catalyst Coke: In many catalytic operations (e.g., catalytic cracking), carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Catalytic Cracking: A refining process that consists of using a catalyst and heat to break down the heavier and more complex hydrocarbon molecules into lighter and simpler molecules.

Catalytic Hydrocracking: A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high octane gasoline, reformer charge stock, jet fuel, and /or high grade fuel oil. The process uses one or more catalysts, depending on product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating: A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming: A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are: 1) Low Pressure: A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator. 2) High pressure: A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Catalyst Petroleum Coke: The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g. catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. That carbon or coke is not recoverable in a concentrated form.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Coal Bed Methane: Methane is generated during coal formation and is contained in the coal microstructure. Typical recovery entails pumping water out of the coal to allow the gas to escape. Methane is the principal component of natural gas. Coal bed methane can be added to natural gas pipelines without any special treatment.

Coal Coke: The strong, porous, residue consisting of carbon and mineral ash that is formed when the volatile constituents of bituminous coal are driven off by heat in the absence of, or in a limited supply of air. It is used primarily in blast furnaces for smelting ores, especially iron ore.

Coke Plants: Plants where coal is carbonized in slot or beehive ovens for the manufacture of coke.

Coal Production: The sum of sales, mine consumption, issues to miners, and issues to coke, briquetting, and other ancillary plants at mines. Production data include quantities extracted from surface and underground mines, and normally exclude wastes removed at mines or associated reparation plants.

Coal Stocks: Coal quantities that are held in storage for future use and disposition.

Commercial Sector: Non-manufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, laundries and other service enterprises; health, social and educational institutions; and federal, state and local governments. Streetlights, pumps, bridges and public services also are included.

Condensate: (See Lease Condensate).

Cord of Wood: A cord of wood measures 4 feet by 4 feet by 8 feet, or 128 cubic feet.

Crude Oil (including lease condensate): A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

Crude Oil Average Domestic First Purchase Price: The average price at which all domestic crude oil is purchased. Prior to February 1976, the price represented an estimate of the average of posted prices; after February 1976, the price represents an average of actual first purchase prices. This price is frequently called the wellhead price.

Crude Oil Production: The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Refinery Input: Total crude oil (including lease condensate) input to crude oil distillation units and other processing units.

Crude Oil Sold: An equity (not custody) transaction involving an arms-length transfer of ownership of crude oil associated with the physical removal of the crude oil from a property (lease). It occurs at the time and place of ownership transfer where the crude oil volume sold is measured and recorded on a run ticket or other similar physical evidence of purchase.

Crude Oil Stocks: Stocks of crude oil and lease condensate held at refineries.

Cubic Foot (Natural Gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60 degrees F.

Decommissioning: Retirement of a nuclear facility, including decontamination and/or dismantlement.

Degree-Days, Cooling: A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees F. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperature, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specific reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

Degree-Days, Heating: A Measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees F. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specific reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

Demonstrated Coal Reserves: The sum of coal in both measured and indicated resource categories of reliability that represents 100 percent of the coal in these categories in-place as of a certain date. Includes beds of bituminous coal and anthracite 28 or more inches thick and beds of subbituminous coal 60 or more inches thick that occurs at depths to 1,000 feet. Includes beds of lignite 60 or more inches thick that can be surface mined. Represents that portion of the identified coal resource from which reserves are calculated.

Development Well: A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

Diesel Fuel: A fuel composed of distillates obtained in petroleum refining operation or blends of such distillates with residual oil used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2 and No. 4 fuel oils and No. 1, No. 2 and No. 4 diesel fuels.

Dry Well: An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as a commercial oil or gas well.

Dry Natural Gas Production: Marketed production less extraction loss, lease and plant fuel use.

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electric Utility: A corporation, person, agency, authority or other entity that owns or operates facilities for the generation, transmission, distribution or sale of electricity primarily for use by the public.

Electric Utility Sector: Privately and publicly owned establishments that generate electricity primarily for use by the public.

Electricity Generation: Net electricity (gross electricity output measured at the generator terminals, minus power plant use) generated at electric utilities. Excludes industrial electricity generation.

End User: A firm or individual that purchases products for its own consumption and not for resale (i.e., an ultimate consumer).

End-Use Sectors: The residential, commercial, industrial, transportation and electric utility sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertibly and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy Information Administration (EIA): An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and does analytical and modeling analyses of energy issues. The Agency must satisfy the requests of Congress, other elements within the Department of Energy, Federal Energy Regulatory Commission, the Executive Branch, its own independent needs, and assist the general public, or other interest groups, without taking a policy position.

Extension / Exploratory Well: A well drilled to find and produce oil or gas in an unproved area; to find a new reservoir in a field previously found to be producing oil or gas in another reservoir; or to extend the limit of a known oil or gas reservoir.

Extraction Loss: The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Fee Lands: Lands where the ownership is privately held.

Field: An area consisting of a single reservoir or multiple reservoirs all grouped on or related to the same individual geological structural feature. There may be two or more reservoirs in a field that are separated vertically by intervening impervious strata or laterally by local geologic barriers or by both.

Flared: The volume of natural gas burned in flares on the lease site or at gas processing plants.

F.O.B. (Free on Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore that is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Forward Cost: The operating and capital costs still to be incurred in the production of uranium from in-place reserves. By using forward costing, estimates of reserves for ore deposits in differing geological settings and status of development can be aggregated and reported for selected cost categories. Included are costs for labor, materials, power and fuel, royalties, payroll taxes, insurance and applicable general and administrative costs. Excluded from forward cost estimates are prior expenditures, if any, incurred for property acquisition, exploration, mine development and mill construction as well as income taxes, profit and the cost of money. Forward costs are neither the full costs of production nor the market price at which the uranium, when produced, might be sold.

Fossil Fuel: Any naturally occurring organic fuel, such as coal, crude oil and natural gas.

Fossil Fuel Steam-Electric Power Plant: An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Fuel: Any material substance that can be consumed to supply heat or power. Included are petroleum, coal, and natural gas (the fossil fuels), and other consumable materials, such as uranium, biomass, and hydrogen.

Fuel Oil: A liquid petroleum product less volatile than gasoline, used as an energy source. Fuel oil includes distillate fuel oil (No. 1, No. 2, and No. 4), and residual fuel oil (No. 5 and No. 6).

Gas Plant Operator: Any firm, including a gas plant owner that operates a gas plant and keeps the gas plant records.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are typically classified as oil wells.)

Geothermal Energy (as used at electric utilities): Hot water or steam, extracted from geothermal reservoirs in the earth's crust, which is supplied to steam turbines at electric utilities that drive generators to produce electricity.

Gigawatt (GW): One billion watts.

Gigawatthour (GWh): One billion watthours.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

Gross Production: Full well stream volume, including all natural gas plant liquids and non-hydrocarbon gases, but excluding lease condensate. Also includes amounts delivered as royalty payments or consumed in field operations.

Heat Content of a Quantity of Fuel, Gross: The total amount of heat released when a fuel is burned. Coal, crude oil, and natural gas all include chemical compounds of carbon and hydrogen. When those fuels are burned, the carbon and hydrogen combine with oxygen in the air to produce carbon dioxide and water. Some of the energy released in burning goes into transforming the water into steam and is usually lost. The amount of heat spent in transforming the water into steam is counted as part of gross heat content but is not counted as part of the net heat content. It is also referred to as the higher heating value. Btu conversion factors in the publication typically represent gross heat content.

Heat Content of a Quantity of Fuel, Net: The amount of usable heat released when a fuel is burned under conditions similar to those in which it is normally used. Also referred to as the lower heating value.

Heavy Oil: The fuel oils remaining after the lighter oils have been distilled off during the refining process. Except for start-up and flame stabilization, virtually all petroleum used in steam-electric plants is heavy oil.

Home Heating Oil: No. 2 fuel oil for use in atomizing burners for domestic space heating or for moderate capacity commercial/industrial burner units.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

Hydroelectric Power: Electricity generated by an electric power plant whose turbines are driven by falling water.

Hypothetical Resources (coal): Undiscovered coal resources in beds that may reasonably be expected to exist in known mining districts under known geologic conditions. In general, hypothetical resources are in broad areas of coalfields where points of observation are absent and evidence is from distant outcrops, drill holes, or wells. Exploration that confirms their existence and better defines their quantity and quality would permit their reclassification as identified resources. Quantitative estimates are based on a broad knowledge of the geologic character of coalbed or region. Measurements of coal thickness are more than 6 miles apart. The assumption of continuity of coalbed is supported only by geologic evidence.

Identified Resources: Coal deposits whose location, rank, quality, and quantity are known from geologic evidence supported by engineering measurements. Included are beds of bituminous coal and anthracite (14 or more inches thick) and beds of subbituminous coal and lignite (30 or more inches thick) that occur at depths to 6,000 feet. The existence and quantity of these beds have been delineated within specified degrees of geologic assurance as measured, indicated, or inferred. Also included are thinner and/or deeper beds that presently are being mined or for which there is evidence that they could be mined commercially.

Implicit Price Deflator: The implicit price deflator, published by the U.S. Department of Commerce, Bureau of Economic Analysis, is used to convert nominal figures to real figures.

Industrial Sector: Manufacturing, construction, mining, agriculture, fishing and forestry establishments.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Interdepartmental Service: Electricity supplied to departments of the electric utility company other than the electric generating department.

Interstate Movement of Natural Gas (Deliveries): The physical transfer of natural gas from Utah production, processing, transportation, storage and/or distribution facilities to facilities in other states.

Interstate Movement of Natural Gas (Receipts): Natural gas that is physically transferred from production, processing, transportation, storage and/or distribution facilities in other states to facilities in Utah.

Investor-Owned Utility: A class of utility that is publicly traded and organized as a tax-paying business, usually financed by the sale of securities in the capital market. It is regulated and authorized to achieve an allowed rate of return.

Isobutane: A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Isobutylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isopentane: A saturated branch-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes such as fuel for turbines to produce electricity.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400 degrees F at the 10 percent recovery point and a final maximum boiling point of 572 degrees F. It is used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290 to 470 degrees F. It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate that has a maximum distillation temperature of 401 degrees F at the 10 percent recovery point, a final boiling point of 572 degrees F and a maximum flash point of 100 degrees F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kilowatt (kW): One thousand watts.

Kilowatthour (kWh): One thousand watthours.

Lease and Plant Fuel: Natural gas used in lease operations, as gas processing plant fuel and as gas used to operate pumps for repressuring or lifting operations.

Lease Condensate: A liquid recovered from natural gas in lease or field separation facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons but does not include products recovered at natural gas processing plants or facilities. Generally, it is blended with crude oil for refining.

Lease Use: Natural gas used in lease operations for gas lift and reinjection into oil or gas formations for pressure maintenance and cycling purposes.

Light Oil: No. 1 and No. 2 fuel oils, kerosene and jet fuel used as fuel at electric utility plants for the generation of electricity; the term light oil is applied only to fuel consumed by the electric utility sector. For the years 1970 through 1979, any fuel oil consumed by internal combustion and gas turbine plants is assumed to be light oil. For the years 1980 forward, only No. 1 and No. 2 fuel oils, kerosene and jet fuel consumed at electric utility plants are reported as light oil.

Lignite: The lowest rank of coal. Often referred to as brown coal, it is used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis.

Liquefied Natural Gas (LNG): Natural gas that has been liquefied by reducing its temperature to minus 260 F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, propane, normal butane, ethane-propane mixtures, propane-butane mixtures and isobutane produced at natural gas processing plants, including plants that fractionate raw natural gas plant liquids. LPG also includes liquified refinery gases: ethylene, propylene, butylene and isobutylene produced from crude oil at refineries.

Longwall Mining: A cutting machine is pulled back and forth across a panel of coal 300 to 600 feet wide and up to one mile long, with broken coal moved on a conveyor. This is done under movable roof supports that are advanced as the coal is cut. In a mined out area, the roof is allowed to fall as the mining advances.

Lubricants: Substances used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Lubricants include all grades of lubricating oils from spindle oil to cylinder oil and those used in greases.

Marketed Production (Natural Gas): Gross withdrawals less gas used for repressuring, quantities vented and flared and non-hydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

Mcf: One thousand cubic feet.

Megawatt (MW): One million watts.

Megawatthour (MWh): One million watthours.

Methane: A colorless, flammable, odorless, hydrocarbon gas (CH₄) that is the principal constituent of natural gas. It is also an important source of hydrogen in various industrial processes.

Mine Capacity: The maximum amount of coal that can be produced annually at a mining operation.

Mothballed: Refers to an industrial facility that is shutdown but maintained regularly or kept in a state of repair so as to be available for future operations.

Motor Gasoline Blending Components: Pool gasoline. Gasoline needing no processing other than blending is included in this category.

Motor Gasoline: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range of temperatures from 122 F to 158 F at the 10 percent recovery point and from 365 to 374 F at the 90 percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. Motor gasoline includes finished leaded gasoline, finished unleaded gasoline and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol also is excluded.

Municipal Utility: A city, county, irrigation district, drainage district or a political subdivision or agency of a state competent under the laws thereof to carry on the business of developing, generating, transmitting or distributing power.

Nameplate Capacity: The full-load continuous rating of a generator, prime mover or other electrical equipment under specified conditions as designated by the manufacturer. Installed nameplate capacity is usually indicated on a nameplate attached physically to the equipment.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees F.

Natural Gas: A mixture of hydrocarbons (principally methane) and small quantities of various non-hydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas, Dry: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees F and 14.73 pounds per square inch absolute.

Natural Gas (Dry) Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and 2) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

Natural Gas Marketed Production: Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring; nonhydrocarbon gases removed in treating and processing operation; and quantities vented and flared.

Natural Gas Plant Liquids (NGPL): Those hydrocarbons in natural gas that are separated as liquids from the gas. Natural gas liquids include natural gas plant liquids (primarily ethane, propane, butane and isobutane produced at natural gas processing plants) and lease condensate (primarily pentanes plus produced from natural gas at lease separators and field facilities).

Natural Gas Processing Plant: A facility designed (1) to achieve recovery of natural gas liquids from the stream of natural gas that may or may not have been processed through the lease separators and field facilities and (2) to control the quality of the gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gas Wellhead Price: The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

Net Electricity Consumption: Consumption of electricity computed as generation, plus imports, minus exports, minus transmission and distribution losses.

Net Energy Consumption: Total energy use excluding electrical system energy losses.

Net Generation: Gross generation less plant use, measured at the high-voltage terminals of the station's step-up transformer.

Net Interstate Sales of Electricity: The difference between the sum of electricity sales and losses within a state and the total amount of electricity generated within the state. A positive number indicates that more electricity (including associated losses) came into the state than went out of the state during the year. Conversely, a negative number indicates that more electricity (including associated losses) went out of the state than came into the state.

New Field Wildcat: An exploratory well drilled in an unproven area, located at a considerable distance outside the limits of producing wells.

Nominal Dollars: A measure used to express nominal price.

Nominal Mining Capacity: The design amount of ore per day a mill can process, usually expressed in tons per day.

Nominal U₃O₈ Production Capacity: The design amount of "yellowcake" a mill can produce, usually expressed in tons per day.

Non-Associated (Natural Gas): Natural gas not in contact with significant quantities of crude oil in a reservoir.

Nuclear Electric Power Plant: Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Operable Refinery Capacity (Barrels per Calendar Day): The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a 24-hour period after making allowances for: (1) the capability of downstream facilities to absorb the output of crude oil of a given refinery. (2) The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround. (3) The reduction of capacity for unscheduled downtime such as mechanical problems, repairs and slowdowns.

Operable Refinery Capacity (Barrels per Stream Day): Maximum number of barrels of input that can be processed in an atmospheric distillation facility during a 24-hour period of operation.

Operators (Oil/Gas Well): Entity responsible for the day-to-day operation of one or more crude oil or natural gas wells.

Original Principal Reserves: The sum of all the coal existing in the measured reserve (based on adequate exploration and development data within one-half mile of a control point); indicated reserve (based on geologic measurement within one-and-one-half mile of a control point) and inferred reserve (based on geologic inference within three miles of a control point) in beds of subbituminous coal 4 feet or more in thickness occurring at depths of 3,000 feet or less; and prior to initial mining.

Original Recoverable Reserves: The minable portion of the original principal reserve, using the methods of mining available in the area at the time of data determination.

Oxygenates: Substances which, when added to gasoline increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

Pentanes Plus: A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petroleum: A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids and non-hydrocarbon compounds blended into finished petroleum products.

Petroleum Coke: A solid residue that is the final product of the condensation process in cracking. This product is reported as marketable or catalyst coke.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

Photovoltaic and Solar Thermal Energy (as used at electric utilities): Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Production, oil and gas: The lifting of oil and gas to the surface and gathering, treating, field processing (as in the case of processing gas to extract liquid hydrocarbons), and field storage. The production function shall normally be regarded as terminating at the outlet valve on the lease or field production storage tank. If unusual physical or operational circumstances exist, it may be more appropriate to regard the production function as terminating at the first point at which oil, gas, or gas liquids are delivered to a main pipeline, a common carrier, a refinery, or a marine terminal.

Propane: A normally gaseous, paraffinic hydrocarbon (C_3H_8). It is extracted from natural gas or refinery gas streams. Propane is used primarily for residential and commercial heating and cooling and also as a fuel for transportation. Industrial uses of propane include use as a petrochemical feedstock.

Proved Reserves: The estimated quantities of natural gas or crude oil that geological and engineering data have demonstrated with reasonable certainty to be recoverable from known crude oil and natural gas reservoirs under current economic and operating conditions.

Public Authorities: Municipalities or other divisions or agencies of state or federal governments using electricity for the purpose of lighting streets, highways, parks and other public places or for traffic or other signal system service.

Real Dollars: These are dollars that have been adjusted for inflation.

Reasonably Assured Reserves: Uranium reserves that occur in known mineral deposits of such size, grade and configuration that there could be recovered within the given production cost ranges with currently proven mining and processing technology.

Recoverable Reserves: That portion of an identified resource from which a usable mineral or energy commodity can be economically extracted or produced. Note that a reserve represents only that portion of the resource that can be recovered.

Renewable Energy: Energy obtained from sources that are essentially inexhaustible (unlike, the fossil fuels of which there is a finite supply). Renewable energy resources include wood, waste, geothermal, wind, photovoltaic and solar thermal energy.

Reserve: That portion of the demonstrated reserve base that is estimated to be recoverable at the time of determination. The reserve is derived by applying a recovery factor to that component of the identified coal resource designated as the demonstrated reserve base.

Reservoir: A porous and permeable underground formation containing an individual and separate natural accumulation of producible hydrocarbons (crude oil and/or natural gas) which is confined by impermeable rock or water barriers and is characterized by a single natural pressure system.

Reservoir Repressing: The injection of natural gas into oil and gas reservoir formations for pressure maintenance and cycling.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No.6, which includes Bunker C fuel oil and is used for commercial and industrial heating and electricity generation.

Residential Sector: All private residences whether occupied or vacant, owned or rented, including single-family homes, multi-family housing units and mobile homes. Secondary homes, such as summer homes also are included. Institutional housing such as school dormitories, hospitals and military barracks generally are not included in the residential sector; they are included in the commercial sector. The SIC code used to classify an establishment as residential is 88 (Household).

Road Oil: Any heavy petroleum oil including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Rotary Rig: A machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Rural Electric Cooperatives: Cooperatives and other non-profit organizations financed in whole or in part by loans made pursuant to the *Rural Electrification Act of 1936* and organized to carry on the business of developing, generating, transmitting or distributing electric power.

Seismic Activity: As used in the exploration for oil and gas, seismic activity refers to the investigation of underground strata by recording and analyzing shock waves set off by explosions detonated in a line of shot holes and picked up by geophones.

Short Ton: A unit of weight equal to 2,000 pounds.

Shut In: Closed temporarily; wells and mines capable of production may be shut in for repair, cleaning, inaccessibility to a market, etc.

Solar Energy: The radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

Solar Thermal Systems: Use concentrated sunlight to generate heat for thermal conversion processes such as electricity generation.

Steam Electric Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Special Naphthas: All finished products within the gasoline range, specially refined to a specified flash point and boiling range for use as paint thinners.

Stocks: Inventories of fuel stored for future use.

Strip (Surface) Mining: A method used on flat terrain to recover coal by mining long strips successively. The material excavated from the strip being mined is deposited in the strip previously mined.

Stripper Well: An oil or gas well that produces at relatively low rates. For oil, stripper production is usually defined as production rates of between 5 and 15 barrels of oil per day. Stripper gas production would generally be anything less than 60 thousand cubic feet per day.

Surface Mine: A coal-producing mine that is usually within a few hundred feet of the surface. Earth above or around the coal (overburden) is removed to expose the coal bed, which is then mined with surface excavation equipment such as draglines, power shovels, bulldozers, loaders and augers. It also may be known as an area, contour, open-pit, strip or auger mine.

Therm: One-hundred thousand British thermal units (Btu).

Transportation Sector: Private and public vehicles that move people and commodities, included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges and natural gas pipelines.

Underground Mine: A mine where coal is produced by tunneling into the earth to the coalbed, which is then mined with underground mining equipment such as cutting machines and continuous, longwall and shortwall mining machines.

Underground Storage Injections: Gas from extraneous sources put into underground storage reservoirs.

Underground Storage Withdrawals: Gas removed from underground storage reservoirs.

Unfinished Oils: Includes all oils requiring further refinery processing except those requiring only mechanical blending.

Uranium: A heavy, naturally radioactive, metallic element (atomic number 92). Its two principally occurring isotopes are uranium-235 and uranium-238. Uranium-235 is indispensable to the nuclear industry because it is the only isotope existing in nature to any appreciable extent that is fissionable by thermal neutrons. Uranium-238 is also important because it absorbs neutrons to produce a radioactive isotope that subsequently decays to plutonium-239, an isotope that is also fissionable by thermal neutrons.

Uranium Oxide (U_3O_8): Uranium concentrate, a product of the uranium milling process. It is a bright yellow colored powder and is known as "yellowcake".

Vented Gas: Gas released into the air on the lease site or at processing plants.

Watt: The electrical unit of power, the rate of energy transfer equivalent to one ampere flowing under a pressure of 1 volt at unity power factor.

Watthour (Wh): An electrical energy unit of measure equal to one watt of power supplied to or taken from an electric circuit steadily for one hour.

Wax: A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax, whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Wellhead: The point at which the crude (and/or natural gas) exits the ground. Following historical precedent, the volume and price for crude oil production are labeled as "wellhead," even though the cost and volume are now generally measured at the lease boundary. In the context of domestic crude price data, the term "wellhead" is the generic term used to reference the production site or lease property.

Wellhead Price: Represents the wellhead sales price including charges for natural gas plant liquids subsequently removed from the gas, gathering and compression charges and state production, severance and/or similar charges.

Wind Energy (as used at electric utilities): The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blades rotating from a hub) that drive generators to produce electricity for distribution.

Wood and Waste (as used at electric utilities): Wood energy (see Wood Energy), garbage, bagasse, sewerage gas and other industrial, agricultural and urban refuse used to generate electricity for distribution.

Wood Energy: Wood and wood products used as fuel. Included are round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, pulp waste and spent pulping liquor.

Yellowcake: An impure form of U_3O_8 , the product of uranium milling.

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